UK MET OFFICE
GLOBAL DATA MONITORING REPORT

February 2006

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1. Introduction

As the WMO-appointed lead centre for monitoring surface marine data, the U.K. Meteorological Office produces monthly statistics on the quality of these observations received at RSMC Exeter. This report includes this information along with statistics for most other types of data. The figures and tables contained herein are presented according to the agreed standards for the exchange of monitoring results.

The report is based on data received at the UK Meteorological Office Headquarters, Exeter in time for inclusion into the appropriate analysis (the current cut-off time is approximately 7.2 hours after each analysis time). The evaluation of data quality is based on comparison with the appropriate 6-hour global model forecast (background) field, although to provide background values valid at the observation time for non-main hour data, time-interpolation of the T+3, T+6 and T+9 forecasts is used; and for sea surface temperature the background field is the analysis from the previous day. Generally, the background field is of high quality except in data sparse areas, tropical regions and areas close to steep orography where care should be taken in interpreting the statistics shown.

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2 Global Data Monitoring Statistics

Ships, Fixed buoys, Platforms and Drifting buoys observations

TABLES 1and 2 contain lists of the stations which are considered to have returned suspect observations of pressure, windspeed, wind direction or sea surface temperature, as appropriate, during the month. The criteria for quality control are given on the header page for each table.

Figures 1 and 2 show 10 degree lat/long box average numbers of SHIP/SYNOP and DRIFTER observations received per day throughout the month at Exeter and assimilated into model runs. All data are included. Box average values are plotted as the nearest whole number (values of x.5 are rounded up). Where the average is more than 999, then 999 is plotted. A box with no observations is blank. If the 24 hour average >0 but <0.5, then 0 is plotted.

Synop Observations

Table 3 contains a list of stations which are considered to have returned suspect observations of Pressure during the month. The criteria for quality control are given in the header page. The reporting practice of each station is included in the list of statistics.

At the UK Met. Office, we monitor SYNOP pressure after it has been interpolated to our Global NWP Model's surface height. For most synoptic stations (about 75%), the surface pressure (at the model surface) is calculated from the reported station-level pressure, or, if this is not available, the height of a standard pressure-level (e.g. 850 hPa or 700 hPa). If neither of these are available, or if the reported station-level pressure is deemed unreliable, the reported mean sea-level pressure is used (about 25% of SYNOPs).

Aircraft observations

Tables 4A (300-150 hPa) and 4B (1000-301 hPa) contain lists of statistics calculated from data received from all airline carriers.

Figures 3A (300-150 hPa) and 3B (1000-301 hPa) show 10 degree lat/long box average numbers of aircraft reports in AIREP/AMDAR code (including AIREP, ACAR, AMDAR, ASDAR and ADS) received per day throughout the month at Exeter and assimilated into model runs. Observations with a vector wind difference (compared with the model background field) of >60 m s^{-1} have been excluded. Box average values are plotted as the nearest whole number (values of x.5 are rounded up). Where the average is more than 999, then 999 is plotted. A box with no observations is blank. If the 24 hour average >0 but <0.5, then 0 is plotted.

Figures 4A-7A (300-150 hPa) and 4B-7B (1000-301 hPa) show wind statistics for AIREP/ASDAR in AIREP/AMDAR code (including AIREP, ACAR, AMDAR, ASDAR and ADS). Observations with a vector wind difference > 60 m s^{-1} have been excluded. Statistics have not been calculated for 10 degree lat/long boxes containing <31 observations.

Figure	Parameter
4	Mean wind vectors
5	Mean observation - background wind vector
6	Mean observation-background speed (m s^{-1})
7	RMS observation-background vector (m s^{-1})

Radiosonde Observations

TABLES 5-7 contain lists of the stations which are considered to have returned suspect observations of geopotential height, vector wind or wind direction, as appropriate, during the month. The criteria for quality control are given on the header page for each table.

Figures 8 and 9 show 10 degree lat/long box average numbers of TEMP 500 hPa GEOPOTENTIAL HEIGHT and TEMP/PILOT 300 hPa WIND observations received per day throughout the month at Exeter and assimilated into model runs. Data from all hours are included. Box average values are plotted as the nearest whole number (values of x.5 are rounded up). Where the average is more than 999, then 999 is plotted. A box with no observations is blank. If the 24 hour average >0 but <0.5, then 0 is plotted.

APPENDIX I shows details of the gross error limits used in TABLES 5 and 6 and the weights used in the RMS values in TABLE 5.

Satellite Observations

Figures 10-24 show satellite wind statistics for all geostationary satellites. All plots other than **AVAILABILITY** show average data where there are > 10 observations in a 10 degree lat/long box.

Figure	Parameter Plotted	Layer (hPa)
10	Availability/average daily number	701-1000
11	Vector mean wind (observed)	701-1000
12	Observation-background vector wind difference	701-1000
13	Mean observation-background speed differences	701-1000
14	RMS observation-background vector difference	701-1000
15	Availability/average daily number	401-700
16	Vector mean wind (observed)	401-700
17	Observation-background vector wind difference	401-700
18	Mean observation-background speed differences	401-700
19	RMS observation-background vector difference	401-700
20	Availability/average daily number	101-400
21	Vector mean wind (observed)	101-400
22	Observation-background vector wind difference	101-400
23	Mean observation-background speed differences	101-400
24	RMS observation-background vector difference	101-400

Figures 25-39 show sounding statistics from the polar orbitting satellite NOAA-15. Figure 25 shows the mean daily number of ATOVS soundings, and figures 26-39 show mean and standard deviation observation-background differences for brightness temperature, for selected channels.

Figure		Weighting function peak (hPa)
26	Mean	Surface (HIRS8)
27	SD	Surface (HIRS8)
28	Mean	700 (HIRS15)
29	SD	700 (HIRS15)
30	Mean	500-700 (HIRS11)
31	SD	500-700 (HIRS11)
32	Mean	400 (HIRS4)
33	SD	400 (HIRS4)
34	Mean	700 (AMSUA5)
35	SD	700 (AMSUA5)
36	Mean	300 (AMSUA7)
37	SD	300 (AMSUA7)
38	Mean	100 (AMSUA9)
39	RMS	100 (AMSUA9)

Figures 40-54 show sounding statistics from the polar orbitting satellite NOAA-16. Figure 40 shows the mean daily number of ATOVS soundings, and figures 41-54 show mean and standard deviation observation-background differences for brightness temperature, for selected channels.

Figure		Weighting function peak (hPa)
41	Mean	Surface (HIRS8)
42	SD	Surface (HIRS8)
43	Mean	700 (HIRS15)
44	SD	700 (HIRS15)
45	Mean	500-700 (HIRS11)
46	SD	500-700 (HIRS11)
47	Mean	400 (HIRS4)
48	SD	400 (HIRS4)
49	Mean	700 (AMSUA5)
50	SD	700 (AMSUA5)
51	Mean	300 (AMSUA7)
52	SD	300 (AMSUA7)
53	Mean	100 (AMSUA9)
54	RMS	100 (AMSUA9)

Figures 55-69 show sounding statistics from the polar orbitting satellite NOAA-18. Figure 55 shows the mean daily number of ATOVS soundings, and figures 56-69 show mean and standard deviation observation-background differences for brightness temperature for selected channels.

Figure		Weighting function peak (hPa)
56	Mean	Surface (HIRS8)
57	SD	Surface (HIRS8)
58	Mean	700 (HIRS15)
59	SD	700 (HIRS15)
60	Mean	500-700 (HIRS11)
61	SD	500-700 (HIRS11)
62	Mean	400 (HIRS4)
63	SD	400 (HIRS4)
64	Mean	700 (AMSUA5)
65	SD	700 (AMSUA5)
66	Mean	300 (AMSUA7)
67	SD	300 (AMSUA7)
68	Mean	100 (AMSUA9)
69	RMS	100 (AMSUA9)

N.B. All satellite sounding data is bias-corrected (and thinned) before being assimilated in the UKMO NWP model.

3 Composite Observing Systems for the North Atlantic (COSNA)

This section shows statistics for upper air (radiosonde and aircraft) and surface (drifter) data for the North Atlantic area for data received at Exeter during the month.

TABLE 8 shows quality statistics for **Mean Sea-level Pressure, Windspeed and Wind Direction** received at Exeter in DRIFTER code during the month for the area 10°N - 80°N, 85°W - 0°W.

TABLE 9 shows quality statistics for **Temperature and Vector Wind** received at Exeter from aircraft during the month for the area 40°N - 70°N, 60°W - 0°W.

Table 10 - 13 show quality statistics **(Geopotential Height and Windspeed at 100 and 500 hPa)** for all TEMPSHIPS in the area bounded by 0°N - 90°N, 100°W - 40°E and selected TEMP stations within the same area.

Revisions

1. May 95 Monitoring statistics for NOAA-11 removed. Figures 25-27 now show data for NOAA-12
2. May 95 Notes giving details of observations included in wind direction statistics clarified and corrected.
3. August 95 Monitoring statistics for NOAA-14 added with figures 28-30.
4. February 96 Monitoring statistics for GOES-7 have been replaced by statistics for GOES-8 and GOES-9.
5. April 96. 500 km and 120 km SATEMs replaced by 120 km resolution temperature profiles produced locally from the radiances disseminated by NESDIS.
6. February 97 Monitoring statistics for Meteosat 5 have been replaced by statistics for Meteosat 6.
7. Sept 97 Monitoring statistics for NOAA-12 removed. Figures 25-27 now show data for NOAA-11
8. January 1998. Increase in resolution of UKMO global forecast model.
9. April 1998. GOES winds ceased on 2nd March 1998, and were replaced with GOES high resolution winds from 15th.
10. June 1998. Monitoring statistics for Meteosat-6 were replaced by monitoring statistics for Meteosat-7, from 3rd June.
11. June 1998. Corrections in our processing of radiosonde data resulted in a decrease in the number of 500hPa geopotential heights in Figure 8 of about 230 per 24 hours (compared with previous reports), and a small increase in the number of 300hPa winds in Figure 9.
12. July 1998. Meteosat-5 began transmitting winds from 2nd July, at 63 degrees East (over the Indian ocean), and this data is included in the statistics.
13. July 1998. GOES-9 (at 135W) was replaced mid-month by GOES-10 (initially at 105W, moving towards 135W).
14. February 1999. Problems with NOAA-11, and TOVS data ceased to be assimilated from 26 February.
15. March 1999. UKMO introduced 3-D VAR assimilation system on 29 March, and also began assimilating ATOVS data from NOAA-15.
16. May 1999. Included statistics for ATOVS sounding data from NOAA-15.
17. September 1999. Included statistics for high resolution visible winds from Meteosat-5 and Meteosat-7.
18. October 1999. The 3-D VAR assimilation system was upgraded on 19 October, including improvements in the assimilation of ATOVS radiances, use of SSM/I surface wind speed, an improvement in the calculation of surface pressure for SYNOPs, and thinning and revision of observation errors of aircraft data.
19. November 1999. High resolution visible winds from Meteosat-5 and Meteosat-7 removed until used operationally.
20. April 2000. Aireps in Table 4 and Figures 3-7 split into ranges 300-150 hPa (A) and 1000-301 hPa (B).
21. September 2000. Corrected an error affecting the mean positions of a minority of buoys in Table 2.
22. November 2000. An error in the production of Table 6 was corrected. Previously, some sondes with suspect vector winds were being missed.
23. April 2001. Included statistics for ATOVS sounding data from NOAA-16.
24. May 2001. Included statistics for sea surface temperatures from marine surface observations.
25. December 2002. Included statistics for ATOVS sounding data from NOAA-17.
26. December 2002. Meteosat-7 and Meteosat-5 SATOB winds replaced by higher resolution BUFR-coded winds.
27. November 2003.Included temperature and relative humidity statistics for ships, fixed buoys and platforms in Table 1.
28. November 2003. NOAA 17 statistics no longer available due to malfunction of the AMSU-A instrument.
29. December 2005. Included statistics for ATOVS sounding data from NOAA-18.

TABLE 1

MONITORING OF MARINE SURFACE OBSERVATIONS
MONTHLY SUSPECT LIST - SHIPS, FIXED BUOYS AND PLATFORMS
MONITORING CENTRE: EXETER
MONTH: Feb 06

Monitoring procedures

Period :One calendar month.

Data monitored :Reports from each unique identifier for ships, fixed buoys and platforms.

Standard of comparison :Background field from UKMO global model.

Observation times :All hours

Elements monitored
:Mean sea level pressure (hPa).
:Wind speed ($m\ s^{-1}$).
:Wind direction (Degrees).
:Air temperature (Degrees C).
:Relative Humidity (%).
:Sea surface temperature (Degrees).

Parameters monitored

:NOBS :Number of observations received excluding duplicates.

:PGE :Percentage of observations with gross errors.

:%REJ :Percentage of observations flagged excluding those with gross errors.

:SD :SD of difference of observations from background values excluding those with gross errors.

:BIAS :Mean difference of observations from background values excluding those with gross errors.
N.B. a positive bias indicates the wind observation is veered to the background.

:RMS :Root Mean Square difference of observations from background values excluding those with gross errors.

GROSS ERROR LIMIT
:15 hPa (pressure)
:25 $m\ s^{-1}$ (vector wind)
:15 degrees (air temperature)
:10 degrees (sea surface temperature)

SELECTION CRITERIA :NOBS ≥ 20 , and one or more of the following:

1.|bias|	≥ 4 hPa	(pressure),
	≥ 5 $m\ s^{-1}$	(wind speed),
	≥ 30 degrees	(direction).
	≥ 3 degrees	(sea surface temperature).
	≥ 4 degrees	(air temperature)
	≥ 15%	(relative humidity)
2.SD	≥ 6 hPa	(pressure),
	≥ 80 degrees	(direction).
	≥ 5 degrees	(sea surface temperature).
	≥ 6 degrees	(air temperature)
	≥ 25%	(relative humidity)
3.PGE	≥ 25	

N.B. Observations of wind direction are only included in the wind direction statistics if the observed OR background wind speed > 5 $m\ s^{-1}$

IDENTIFIER	ELEM	NOBS	PGE	%REJ	SD	BIAS	RMS
A8CE8	P	48	0	63	1.5	4.3	4.6
A8DZ3	P	20	0	100	1.0	7.3	7.4
C6FZ6	P	43	0	0	1.7	7.2	7.4
C6PZ3	P	49	0	2	1.3	5.8	6.0
C6UC3	P	44	0	100	1.3	12.2	12.2
DGGE	P	42	0	55	0.9	5.1	5.1
D5XH	P	29	0	100	1.1	-5.5	5.6
ELVX9	P	62	0	2	1.3	4.4	4.6
KS049	P	220	0	0	1.0	-4.6	4.7
LAOX5	P	33	0	0	0.8	4.0	4.1
PINX	P	46	0	93	3.9	4.7	6.1
PJFF	P	32	0	56	1.9	4.1	4.5
S6JP	P	41	0	71	3.0	4.4	5.3
TEST	P	38	100	100			
UGNQ	P	58	0	0	0.7	-4.1	4.2
UITP	P	46	2	98	1.6	7.2	7.4
VRBH4	P	47	0	30	0.8	4.2	4.3
VVCZ	P	29	3	79	1.7	5.1	5.3
VVJN	P	36	0	3	1.2	-7.1	7.2
V2AW5	P	21	0	0	0.8	5.7	5.7
V7FW8	P	22	0	100	1.0	9.3	9.3
WDB9986	P	48	0	27	1.3	5.2	5.3
ZCDF4	P	28	0	43	2.2	4.2	4.7
23095	P	139	25	27	2.0	0.4	2.1
3EES2	P	56	0	55	2.1	-5.1	5.5
3FHJ6	P	36	3	6	1.5	-4.1	4.4
63005	P	21	5	100	0.2	-13.9	13.9
7850	P	34	3	97	1.5	7.1	7.2

IDENTIFIER	ELEM	NOBS	PGE	%REJ	SD	BIAS	RMS
A8CE8	SPEED	43	0	21	4.2	5.3	6.8
A8HR7	SPEED	59	2	22	3.8	6.1	7.2
DGDO	SPEED	25	4	100	4.2	6.9	8.1
DHAF	SPEED	20	0	15	4.7	5.3	7.1
FNNB	SPEED	40	0	50	4.2	5.0	6.5
HP6038	SPEED	210	0	7	4.1	5.4	6.8
LAIP5	SPEED	44	0	100	3.7	-6.0	7.0
SCKB	SPEED	27	0	19	4.2	6.2	7.5
UCUF	SPEED	24	0	100	3.2	5.8	6.6
UHOM	SPEED	50	0	10	2.8	5.4	6.1
UIAG	SPEED	59	0	25	3.4	5.3	6.3
VEP717	SPEED	206	0	100	3.9	5.9	7.1
VRY09	SPEED	26	0	46	4.0	5.3	6.7
VVCZ	SPEED	29	0	55	4.5	6.9	8.2
3EDI6	SPEED	31	3	10	3.9	5.9	7.1
9MBR8	SPEED	26	4	31	5.1	5.5	7.5
9MCD3	SPEED	21	0	100	7.8	9.4	12.2
9MSM	SPEED	36	3	100	4.2	7.6	8.7

IDENTIFIER	ELEM	NOBS	PGE	%REJ	SD	BIAS	RMS
DGZN	DIRN.	25	4	0	115.8	29.8	119.6
FQXJ	DIRN.	88	0	0	75.2	33.2	82.2
LDGJ	DIRN.	31	19	0	87.9	-11.8	88.7
PJTA	DIRN.	23	0	0	97.9	81.3	127.3
TOUR	DIRN.	22	0	0	82.3	-62.7	103.5
UCUC	DIRN.	25	4	0	84.6	-60.5	104.0
23099	DIRN.	30	0	0	82.7	45.5	94.3
23172	DIRN.	103	0	0	21.0	-36.0	41.7
46078	DIRN.	587	0	0	12.0	-39.0	40.8
52002	DIRN.	97	0	0	24.7	-34.4	42.3

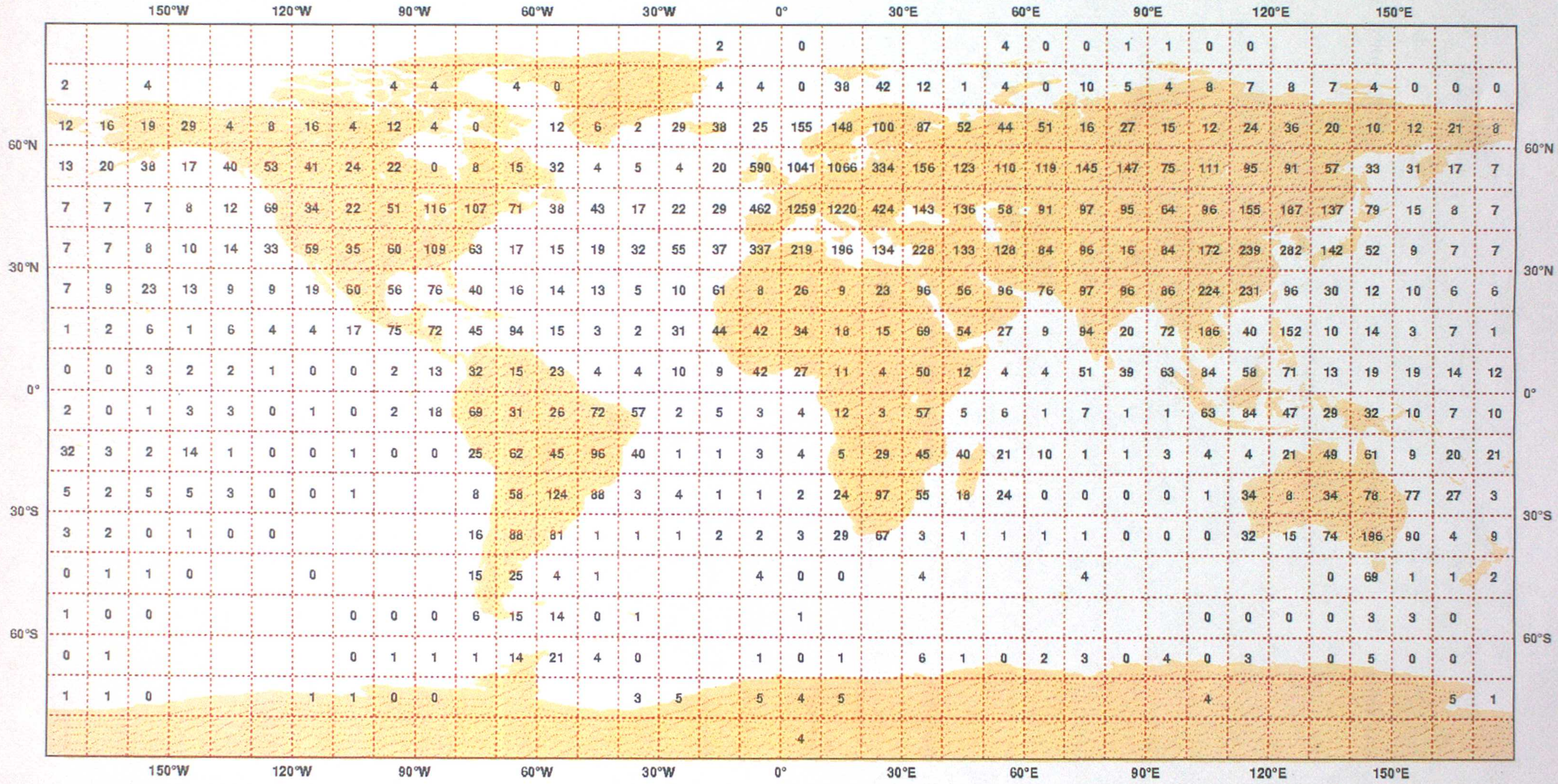
52316	DIRN.	109	0	0	86.9	7.2	87.2

IDENTIFIER	ELEM	NOBS	PGE	%REJ	SD	BIAS	RMS
DGNB	T	464	16	100	5.4	4.2	6.9
ELWX5	T	162	44	100	2.2	-9.8	10.0
SP34	T	111	13	100	5.2	-7.3	8.9
TEST	T	38	100	100			
UBXS	T	21	0	100	1.6	6.3	6.5
UCKH	T	70	0	100	3.3	-4.5	5.6
UGPK	T	20	0	100	1.9	-5.8	6.1
WCY2306	T	145	8	100	3.8	4.0	5.5
WXJ63	T	214	7	100	3.9	6.2	7.3
23169	T	571	26	100	1.2	0.5	1.3
46081	T	658	0	100	2.7	5.3	6.0
46088	T	318	0	100	3.1	5.2	6.0
46131	T	662	0	100	2.3	5.4	5.9
46146	T	667	0	100	2.4	4.9	5.5
46181	T	663	0	100	2.4	5.3	5.9

IDENTIFIER	ELEM	NOBS	PGE	%REJ	SD	BIAS	RMS
A8CI8	RH	51	0	100	7.4	16.1	17.8
A8HJ8	RH	23	0	100	17.0	-20.0	26.3
C6KV3	RH	35	0	100	6.3	16.4	17.6
C6SV2	RH	23	0	100	9.0	16.0	18.4
FNAT	RH	59	0	100	6.5	16.5	17.8
KSDF	RH	22	0	100	6.1	-16.9	18.0
NBTM	RH	106	0	100	26.0	-29.6	39.5
PCIM	RH	26	0	100	8.8	-19.3	21.2
PHET	RH	24	0	100	14.3	-15.7	21.2
SKUN	RH	29	0	100	21.9	-15.1	26.6
VRY09	RH	31	0	100	10.8	23.6	26.0
46078	RH	363	0	100	8.8	19.8	21.7
46088	RH	308	0	100	15.5	-15.3	21.8
62125	RH	114	0	100	8.3	15.8	17.9
62133	RH	654	0	100	8.9	-15.0	17.5
62402	RH	59	0	100	9.8	-18.5	20.9

IDENTIFIER	ELEM	NOBS	PGE	%REJ	SD	BIAS	RMS
C6RJ6	SST	43	0	100	0.9	-3.1	3.2
C6SI6	SST	24	4	100	2.7	-3.5	4.4
C6SV2	SST	28	18	64	3.1	-3.5	4.6
C6UG4	SST	29	0	31	1.4	-3.2	3.5
KHRC	SST	45	0	100	0.8	-5.4	5.4
MCZN2	SST	24	4	100	2.2	-4.1	4.7
OULA2	SST	26	0	96	1.3	6.3	6.4
PJTA	SST	380	98	98	0.2	0.2	0.3
SKUN	SST	32	28	38	2.7	-0.9	2.8
SWLC	SST	24	0	100	1.9	-4.3	4.7
TEST	SST	41	100	100			
V7GX5	SST	23	0	100	3.1	-3.7	4.8
WAAH	SST	49	0	100	2.0	3.4	4.0
WCY2306	SST	38	0	111	1.2	-3.9	4.0
WSRH	SST	25	0	100	1.1	-4.0	4.1
3FPA6	SST	59	81	100	1.1	9.0	9.1
41035	SST	802	0	100	0.4	-5.5	5.5
44141	SST	660	0	76	0.7	-3.5	3.5
62164	SST	237	65	89	5.8	2.0	6.2
63005	SST	36	0	75	5.5	-1.7	5.7

Figure 1. SHIP/SYNOP mean daily count. FEBRUARY 2006
All hours
Global average number of observations in 24 hours = 21377



																2		0					4	0	0	1	1	0	0						
2		4						4	4		4	0				4	4	0	38	42	12	1	4	0	10	5	4	8	7	8	7	4	0	0	0
12	16	19	29	4	8	16	4	12	4	0		12	6	2	29	38	25	155	148	100	87	52	44	51	16	27	15	12	24	36	20	10	12	21	8
13	20	38	17	40	53	41	24	22	0	8	15	32	4	5	4	20	590	1041	1066	334	156	123	110	119	145	147	75	111	95	91	57	33	31	17	7
7	7	7	8	12	69	34	22	51	116	107	71	38	43	17	22	29	462	1259	1220	424	143	136	58	91	97	95	64	86	155	167	137	79	15	8	7
7	7	8	10	14	33	59	35	60	109	63	17	15	19	32	55	37	337	219	196	134	228	133	128	84	96	16	84	172	239	282	142	52	9	7	7
7	9	23	13	9	9	19	60	56	76	40	16	14	13	5	10	61	8	26	9	23	96	56	96	76	97	96	86	224	231	96	30	12	10	6	6
1	2	6	1	6	4	4	17	75	72	45	94	15	3	2	31	44	42	34	18	15	69	54	27	9	94	20	72	186	40	152	10	14	3	7	1
0	0	3	2	2	1	0	0	2	13	32	15	23	4	4	10	9	42	27	11	4	50	12	4	4	51	39	63	84	58	71	13	19	19	14	12
2	0	1	3	3	0	1	0	2	18	69	31	26	72	57	2	5	3	4	12	3	57	5	6	1	7	1	1	63	84	47	29	32	10	7	10
32	3	2	14	1	0	0	1	0	0	25	62	45	96	40	1	1	3	4	5	29	45	40	21	10	1	1	3	4	4	21	49	61	9	20	21
5	2	5	5	3	0	0	1			8	58	124	88	3	4	1	1	2	24	97	55	18	24	0	0	0	0	1	34	8	34	78	77	27	3
3	2	0	1	0	0					16	88	81	1	1	1	2	2	3	29	67	3	1	1	1	1	0	0	0	32	15	74	186	90	4	9
0	1	1	0			0				15	25	4	1				4	0	0		4				4						0	69	1	1	2
1	0	0					0	0	0	6	15	14	0	1				1										0	0	0	0	3	3	0	
0	1						0	1	1	1	14	21	4	0			1	0	1		6	1	0	2	3	0	4	0	3		0	5	0	0	
1	1	0				1	1	0	0					3	5		5	4	5									4						5	1
																		4																	

TABLE 2

MONITORING OF MARINE SURFACE OBSERVATIONS
MONTHLY SUSPECT LIST - DRIFTING BUOYS
MONITORING CENTRE: EXETER
MONTH: Feb 06

Monitoring procedures

Period :One calendar month.

Data monitored :Reports from each unique identifier for drifting buoys.

Standard of comparison :Background field from UKMO global model.

Position :Average latitude and longitude for period.

Observation times : All hours

Elements monitored
:Mean sea level pressure (hPa).
:Wind speed (m s^{-1}).
:Wind direction (degrees).
:Sea surface temperature (degrees).

Parameters monitored

:NOBS :Number of observations received excluding duplicates.

:PGE :Percentage of observations with gross errors.

:%REJ : Percentage of observations flagged excluding those with gross errors

:SD :SD of difference of observations from background values excluding those with gross errors.

:BIAS :Mean difference of observations from background values excluding those with gross errors.
N.B. a positive bias indicates the wind observation is veered to the background.

:RMS :Root Mean Square difference of observations from background values excluding those with gross errors.

GROSS ERROR LIMIT
:15 hPa (pressure)
:25 m s^{-1} (vector wind)
:10 degrees (sea surface temperature)

SELECTION CRITERIA : NOBS ≥ 20 , and one or more of the following:

1.|bias|
≥ 4 hPa (pressure),
≥ 5 m s^{-1} (wind speed),
≥ 30 degrees (direction).
≥ 3 degrees (sea surface temperature).

2.SD
≥ 6 hPa (pressure),
≥ 80 degrees (direction).
≥ 5 degrees (sea surface temperature).

3.PGE ≥ 25.

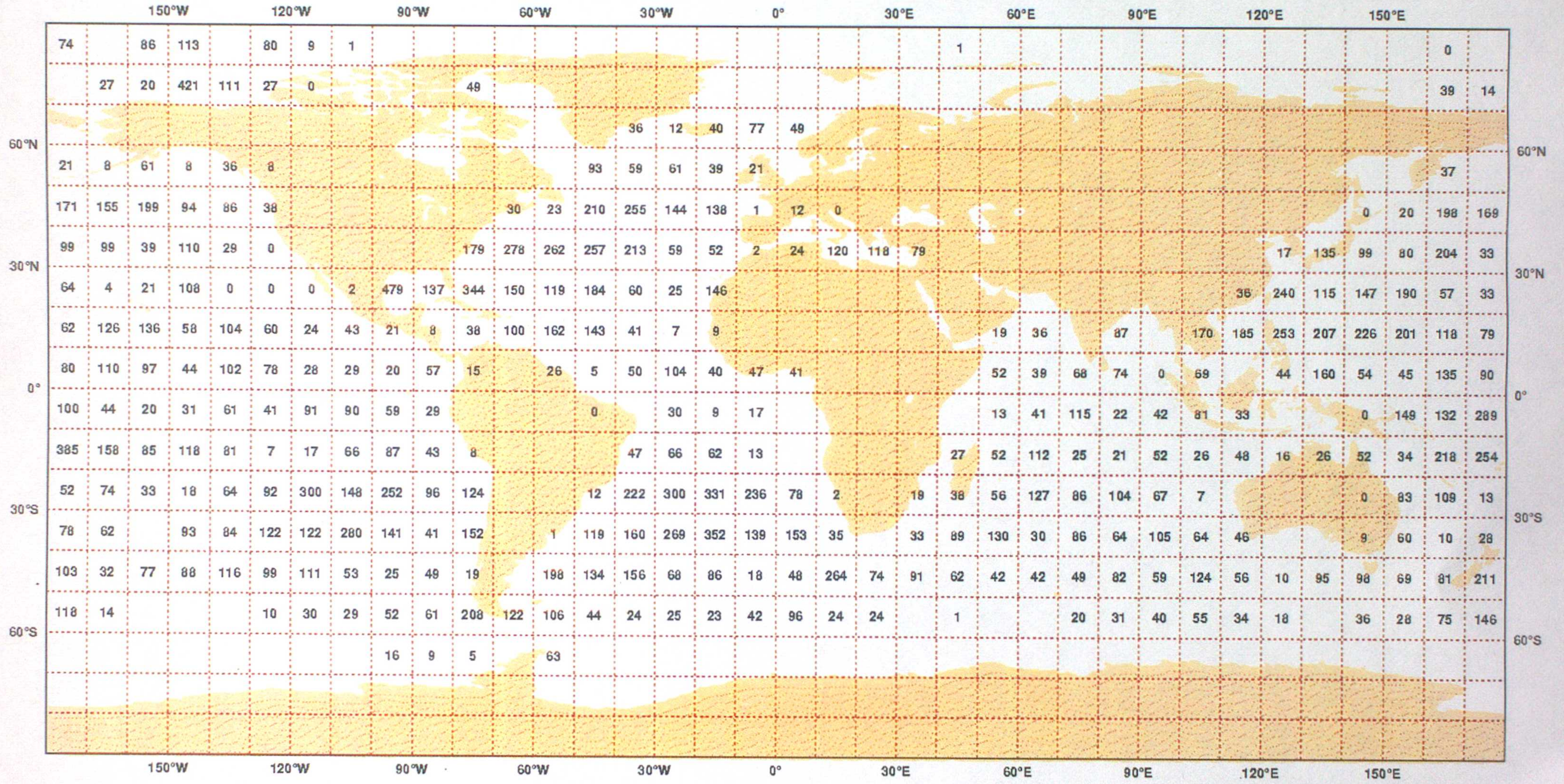
N.B. Observations of wind direction are only included in the wind direction statistics if the observed OR background wind speed > 5 m s^{-1}

IDENTIFIER	LAT.	LONG.	ELEM	NOBS	PGE	%REJ	SD	BIAS	RMS
21935	31.6	-170.8	P	165	1	100	2.9	4.1	5.0
23948	-7.5	53.3	P	114	29	100	2.0	11.4	11.6
31551	-44.8	-39.9	P	1163	78	100	7.4	-4.8	8.8
44636	44.0	-59.7	P	283	25	43	3.0	-0.9	3.2
63525	60.3	5.4	P	22	0	100	0.3	-14.0	14.0
63526	60.3	5.4	P	31	0	100	0.2	-14.0	14.0
63528	60.3	5.4	P	33	3	100	0.3	-13.9	13.9
63529	60.3	5.4	P	38	0	100	0.4	-13.7	13.7
63530	60.3	5.4	P	40	5	100	0.4	-13.9	13.9
71543	-55.5	60.3	P	206	0	100	1.0	-4.0	4.1

IDENTIFIER	LAT.	LONG.	ELEM	NOBS	PGE	%REJ	SD	BIAS	RMS
41933	25.5	-90.0	SPEED	528	11	100	6.7	7.1	9.7
41941	25.8	-95.5	SPEED	427	15	100	6.9	7.7	10.4

IDENTIFIER	LAT.	LONG.	ELEM	NOBS	PGE	%REJ	SD	BIAS	RMS
22641	11.0	109.1	SST	189	0	62	3.5	-5.2	6.2
33584	-40.9	32.9	SST	134	0	100	0.7	-4.3	4.3
41919	26.8	-96.4	SST	653	42	80	4.0	6.1	7.3
51961	20.9	-156.7	SST	51	0	100	2.1	-3.0	3.7

Figure 2. DRIFTER mean daily count. FEBRUARY 2006
All hours
Global average number of observations in 24 hours = 28118



74		86	113		80	9	1															1												0	
	27	20	421	111	27	0				49																								39	14
														36	12	40	77	49																	
21	8	61	8	36	8								93	59	61	39	21																	37	
171	155	199	94	86	38						30	23	210	255	144	138	1	12	0													0	20	198	169
99	99	39	110	29	0					179	278	262	257	213	59	52	2	24	120	118	79									17	135	99	80	204	33
64	4	21	108	0	0	0	2	479	137	344	150	119	184	60	25	146													36	240	115	147	190	57	33
62	126	136	58	104	60	24	43	21	8	38	100	162	143	41	7	9							19	36		87		170	185	253	207	226	201	118	79
80	110	97	44	102	78	28	29	20	57	15		26	5	50	104	40	47	41					52	39	68	74	0	69		44	160	54	45	135	90
100	44	20	31	61	41	91	90	59	29				0		30	9	17						13	41	115	22	42	81	33			0	149	132	289
385	158	85	118	81	7	17	66	87	43	8				47	66	62	13					27	52	112	25	21	52	26	48	16	26	52	34	218	254
52	74	33	18	64	92	300	148	252	96	124			12	222	300	331	236	78	2		19	38	56	127	86	104	67	7				0	83	109	13
78	62		93	84	122	122	280	141	41	152		1	119	160	269	352	139	153	35		33	89	130	30	86	64	105	64	46			9	60	10	28
103	32	77	88	116	99	111	53	25	49	19		198	134	156	68	86	18	48	264	74	91	62	42	42	49	82	59	124	56	10	95	98	69	81	211
118	14				10	30	29	52	61	208	122	106	44	24	25	23	42	96	24	24		1			20	31	40	55	34	18		36	28	75	146
								16	9	5		63																							

TABLE 3

MONITORING OF LAND SURFACE OBSERVATIONS
MONTHLY SUSPECT LIST - SYNOPS & AUTOSYNOPS
MONITORING CENTRE: EXETER
MONTH: Feb 06

Monitoring procedures

Period		:One calendar month.
Data monitored		:Reports from each unique identifier for synops & autosynops.
Standard of comparison		:Background field from UKMO global model.
Observation times		:00, 06, 12, 18 UTC
Elements monitored		:Surface pressure (hPa).
Parameters monitored	:HT(m)	:Station height (in metres) as given in WMO No. 9 Vol A
	:RP	:Pressure reporting practice M=mean sea level pressure (hPa) reported. S=Station level pressure reported. 8=Geopotential height (m) of 850 hPa surface reported. 7=Geopotential height (m) of 700 hPa surface reported.
	:NOBS	:Number of observations received excluding duplicates.
	:NGE	:Number of observations with gross errors.
	:PGE	:Percentage of observations with gross errors.
	:%REJ	:Percentage of observations flagged excluding those with gross errors.
	:SD	:SD of difference of observations from background values excluding those with gross errors.
	:BIAS	:Mean difference of observations from background values excluding those with gross errors.
	:RMS	:Root Mean Square difference of observations from background values excluding those with gross errors.
GROSS ERROR LIMIT	:15 hPa	(pressure)
SELECTION CRITERIA	:NOBS	≥ 20 ,and one or more of the following:
	1.|bias|	≥ 4 hPa
	2. SD	≥ 6 hPa
	3.PGE	≥ 25.

N.B. For stn ht ≥ 500m, mslp is that calculated from station level pressure where available.
For stn ht < 500m, mslp is that as reported by the station where available.

SUSPECT SYNOPS (PRESSURE) BY WMO REGION FEB 2006

WMO REGION 1:

STATION	LAT	LONG	HT(M)	RP	NOBS	NGE	PGE	%REJ	SD	BIAS	RMS
60423	36.3N	8.0E	680	S8	84	84	100	0			
61492	16.1N	13.5W	18	MS	36	0	0	3	1.7	4.1	4.4
62056	32.8N	21.9E	625	S8	76	1	1	0	1.0	-5.1	5.2
63160	10.4N	45.0E	9	M	22	0	0	0	0.7	-5.2	5.2
63170	9.5N	44.1E	1326	M	20	0	0	100	1.3	7.2	7.3
63330	13.5N	39.5E	2070	MS	50	49	98	0	0.0	7.9	7.9
63333	11.1N	39.7E	1903	MS	73	0	0	1	0.8	4.9	5.0
63334	10.3N	37.7E	2515	MS	72	0	0	1	0.9	10.0	10.0
63450	9.0N	38.8E	2354	MS	76	0	0	0	0.6	4.2	4.2
63478	5.9N	43.6E	295	MS	34	0	0	32	1.9	5.9	6.2
63671	1.8N	40.1E	244	M	98	0	0	0	1.1	-4.4	4.5
63801	4.9S	29.6E	882	S8	41	1	2	2	2.1	8.4	8.7
63881	8.0S	31.6E	1923	S	38	3	8	0	3.7	11.9	12.5
67217	13.3S	35.2E	1364	S8	66	0	0	0	0.9	4.1	4.2
67250	15.6S	32.8E	882	S8	22	22	100	100			
67295	19.1S	33.5E	731	S8	60	49	82	0	0.7	13.8	13.8
68014	19.6S	18.1E	1411	S8	43	0	0	0	0.9	-8.0	8.1
68030	18.5S	25.6E	1071	8	59	4	7	0	4.8	8.5	9.8
68102	19.9S	16.4E	1343	S8	112	0	0	0	0.9	5.9	6.0
68300	26.6S	15.1E	16	MS	111	8	7	0	0.8	-13.3	13.3
68312	26.5S	18.1E	1067	S8	38	0	0	0	0.7	4.8	4.9
68350	26.7S	27.1E	1351	S	27	1	4	96	1.0	8.5	8.6
68396	26.5S	31.3E	641	S8	55	0	0	0	0.8	5.0	5.1
68575	30.0S	30.0E	1175	S8	99	99	100	0			

WMO REGION 2:

STATION	LAT	LONG	HT(M)	RP	NOBS	NGE	PGE	%REJ	SD	BIAS	RMS
24671	63.9N	135.9E	402	MS	111	0	0	1	1.4	4.3	4.5
25248	67.3N	168.0E	353	MS	81	0	0	0	2.3	5.8	6.2
30554	54.5N	113.6E	995	MS	112	2	2	3	2.1	12.2	12.4
31534	50.4N	131.0E	230	MS	110	0	0	0	1.6	-4.5	4.8
35416	49.1N	54.7E	128	MS	111	0	0	0	0.7	4.2	4.3
36982	41.9N	78.2E	3635	S7	35	0	0	0	0.7	5.3	5.3
38846	38.4N	70.0E	1437	M	80	2	3	0	2.2	-5.0	5.5
38944	37.5N	69.4E	448	MS	79	4	5	72	2.7	-5.4	6.0
40435	27.0N	44.1E	991	MS	55	0	0	2	1.6	6.8	7.0
40700	39.6N	47.9E	45	MS	100	1	1	0	0.8	-5.0	5.1
40713	37.4N	46.3E	1475	MS	106	48	45	3	0.8	13.9	13.9
40741	36.5N	61.2E	235	MS	107	0	0	0	1.1	-5.1	5.2
40743	36.2N	57.7E	978	MS	107	0	0	0	0.8	5.7	5.8
40757	35.6N	53.4E	1171	MS	107	0	0	0	0.8	4.9	5.0
40780	33.6N	46.4E	1362	MS	108	1	1	0	0.9	4.7	4.8
40854	29.1N	58.4E	1067	MS	103	0	0	1	1.2	10.8	10.9
41252	23.4N	56.5E	244	MS	86	0	0	0	0.6	-9.2	9.2
41254	23.1N	57.6E	1755	S8	111	111	100	0			
41396	16.0N	48.9E	700	MS	45	0	0	2	2.9	6.3	6.9
41466	13.7N	44.1E	1402	S8	79	0	0	0	0.7	-8.2	8.2
44416	28.6N	81.6E	720	MS	71	1	1	0	0.9	4.4	4.5
47020	41.0N	126.6E	305	MS	96	30	31	67	3.9	9.0	9.8
47022	40.8N	128.2E	1224	S	91	0	0	0	0.9	5.9	6.0
47155	35.2N	128.6E	5	MS	112	0	0	0	0.7	-4.1	4.2
47678	33.1N	139.8E	79	MS	112	0	0	0	0.7	-9.6	9.6
48920	8.7N	111.9E	3	MS	88	0	0	28	0.7	4.6	4.7
48921	21.6N	101.9E	923	S	30	30	100	0			
48924	21.1N	101.5E	644	S	49	0	0	2	1.8	11.4	11.5
48925	20.7N	102.0E	550	S	48	1	2	0	0.9	-10.3	10.3
48938	19.2N	101.7E	326	MS	50	25	50	0	1.7	14.1	14.2

48952	15.7N	106.4E	168	MS	41	0	0	0	1.0	-4.3	4.4
50727	47.2N	119.9E	1028	MS	112	0	0	0	0.7	4.4	4.5
50978	45.3N	130.9E	234	MS	112	0	0	0	0.6	-7.0	7.0
51243	45.6N	84.9E	428	MS	112	0	0	0	0.9	-4.1	4.2
51379	44.0N	89.6E	794	M	112	0	0	0	2.6	5.2	5.8
51573	42.9N	89.2E	37	MS	112	0	0	6	1.6	-4.6	4.9
51818	37.6N	78.3E	1376	M	110	0	0	0	3.5	4.5	5.7
52866	36.6N	101.8E	2262	S	112	0	0	0	1.3	-4.1	4.3
53083	44.6N	114.2E	1183	M	111	0	0	0	3.4	4.8	5.9
53352	41.7N	110.4E	1377	M	110	1	1	0	4.0	4.8	6.2
53480	41.0N	113.1E	1416	M	112	0	0	0	3.7	4.0	5.4
53646	38.3N	109.8E	1058	MS	112	0	0	0	0.6	-13.2	13.2
54292	42.9N	129.5E	178	MS	112	0	0	76	0.8	-9.9	9.9
56193	32.4N	104.5E	877	M	112	0	0	0	2.9	4.2	5.1
56462	29.0N	101.5E	2994	S	112	0	0	0	1.5	8.9	9.0
56768	25.0N	101.5E	1773	S	112	0	0	0	0.8	-5.6	5.7
57816	26.6N	106.7E	1074	MS	112	103	92	0	0.3	-14.6	14.6
57922	25.8N	107.6E	971	M	112	0	0	0	1.6	4.1	4.4
58437	30.1N	118.2E	1836	S	112	0	0	44	1.7	-4.0	4.3
59023	24.7N	108.1E	214	MS	112	0	0	76	0.8	-5.0	5.1
59663	21.8N	112.0E	22	MS	112	0	0	0	0.7	-8.6	8.6

WMO REGION 3:

STATION	LAT	LONG	HT(M)	RP	NOBS	NGE	PGE	%REJ	SD	BIAS	RMS
80426	9.4N	70.6W	582	MS	26	0	0	0	0.5	4.6	4.6
82181	2.0S	54.1W	146	MS	83	0	0	0	1.7	5.1	5.4
82704	7.6S	72.7W	170	MS	84	0	0	0	1.5	-4.5	4.7
83235	12.4S	46.4W	604	MS	83	0	0	0	1.7	5.9	6.1
83332	14.1S	46.4W	826	MS	83	16	19	0	1.1	13.2	13.2
83470	17.9S	50.9W	727	MS	79	0	0	0	1.3	-5.6	5.7
83531	18.6S	46.5W	940	MS	84	0	0	0	1.2	-6.1	6.2
83630	20.6S	47.4W	1026	MS	84	0	0	0	1.0	4.0	4.1
83676	21.1S	49.0W	536	MS	84	1	1	0	1.5	-4.2	4.5
83836	25.5S	50.6W	837	MS	84	0	0	0	0.8	-4.4	4.5
83970	31.3S	50.9W	4	MS	70	1	1	0	1.2	-5.5	5.6
84140	1.1S	79.5W	73	MS	55	0	0	0	0.9	6.8	6.9
84143	1.0S	78.6W	2628	S7	51	1	2	4	1.0	-5.2	5.3
84160	1.3S	78.6W	2940	S7	52	1	2	2	0.6	13.2	13.2
84425	5.9S	76.1W	179	MS	20	0	0	5	1.5	5.5	5.7
84452	6.8S	79.8W	29	MS	101	0	0	1	1.1	4.2	4.3
84455	6.5S	76.4W	281	MS	76	0	0	1	2.0	6.9	7.2
84472	7.1S	78.5W	2620	S	51	1	2	0	0.8	-6.1	6.2
84474	7.2S	76.7W	350	S	20	0	0	0	1.4	9.3	9.4
84686	13.6S	72.0W	3248	S	101	0	0	0	0.8	-4.0	4.1
84688	13.7S	73.4W	3444	S	42	0	0	0	0.8	-12.1	12.1
85140	14.3S	67.4W	140	MS	54	0	0	2	1.8	9.9	10.1
85264	18.5S	64.1W	1998	S	49	49	100	0			
85312	19.8S	63.9W	992	S	36	0	0	0	0.9	-11.3	11.3
85432	22.5S	68.9W	2320	S8	30	0	0	0	0.4	4.1	4.1

WMO REGION 4:

STATION	LAT	LONG	HT(M)	RP	NOBS	NGE	PGE	%REJ	SD	BIAS	RMS
71060	52.5N	116.1W	230	MS	112	112	100	0			
71181	47.1N	55.3W	29	MS	112	0	0	0	0.8	-5.8	5.9
71581	54.5N	128.6W	215	MS	112	87	78	0	7.4	-5.7	9.3
71979	53.8N	118.4W	1542	S	102	0	0	0	1.0	9.9	10.0
76055	31.0N	114.9W	440	MS	47	47	100	0			
76225	28.6N	106.1W	1435	MS	79	1	1	1	0.7	-4.3	4.4
76382	25.5N	103.5W	1124	MS	84	0	0	2	1.3	4.1	4.3
76543	22.0N	98.8W	104	MS	45	0	0	0	0.9	9.1	9.1

76658	19.2N	103.7W	494	MS	35	0	0	0	0.6	5.6	5.6
76762	17.5N	99.5W	1265	MS	92	1	1	0	0.8	5.4	5.5
76843	16.8N	93.1W	528	MS	105	1	1	0	1.1	-4.6	4.7
78588	17.2N	87.5W	-291	M	112	112	100	0			

WMO REGION 5:

STATION	LAT	LONG	HT(M)	RP	NOBS	NGE	PGE	%REJ	SD	BIAS	RMS
92010	6.1S	145.4E	1587	M	20	0	0	0	0.6	9.6	9.6
94130	14.8S	131.9E	120	MS	112	0	0	0	0.6	5.6	5.6
96505	3.7N	115.7E	894	MS	53	0	0	0	1.6	11.5	11.6
97284	8.6S	120.5E	1170	S8	75	0	0	0	0.7	4.4	4.5

WMO REGION 6:

STATION	LAT	LONG	HT(M)	RP	NOBS	NGE	PGE	%REJ	SD	BIAS	RMS
01360	61.9N	7.9E	711	MS	106	0	0	0	1.1	7.2	7.3
04330	74.3N	20.2W	44	MS	103	0	0	4	0.8	-4.1	4.2
04416	72.6N	38.4W	3202	S	105	0	0	2	1.2	4.2	4.4
06239	54.9N	44.7E	49	MS	323	94	29	0	7.5	1.8	7.7
06605	47.1N	7.1E	1599	S8	112	0	0	1	1.4	-5.0	5.2
08912	42.9N	0.8W	1434	MS	112	112	100	0			
10850	48.8N	10.7E	457	MS	335	0	0	0	0.4	-5.9	5.9
11116	47.5N	10.8E	870	MS	56	1	2	0	0.6	4.8	4.8
13269	44.3N	19.9E	176	MS	112	1	1	2	0.8	8.0	8.0
14554	44.9N	18.4E	136	S	53	4	8	0	1.3	-13.9	14.0
16450	37.6N	14.3E	940	S8	111	0	0	3	1.5	-4.4	4.6
16538	40.1N	9.3E	1022	S	20	0	0	0	0.6	9.4	9.4
17203	38.9N	40.5E	1177	S8	111	0	0	0	1.2	4.0	4.2
17210	37.9N	41.9E	890	MS	112	1	1	1	1.7	-5.3	5.6
17521	35.2N	33.5E	285	MS	87	87	100	0			
40030	35.1N	36.8E	301	M	103	1	1	3	2.2	-4.3	4.8

ANTARCTIC:

STATION	LAT	LONG	HT(M)	RP	NOBS	NGE	PGE	%REJ	SD	BIAS	RMS
89257	75.4S	59.9W	40	S	83	0	0	0	1.6	-5.9	6.1
89266	72.2S	60.2W	91	S	36	36	100	0			
89272	74.8S	70.5W	1395	S	35	35	100	0			
89327	73.2S	127.1W	230	S	35	13	37	0	4.8	2.8	5.6
89512	70.8S	11.8E	140	MS	112	0	0	0	0.8	-4.2	4.3
89610	65.9S	113.1E	90	S	308	0	0	0	0.8	-9.5	9.5
89614	66.7S	111.5E	500	S	298	298	100	0			
89648	72.5S	145.9E	2508	S	320	320	100	27			
89661	73.5S	169.8E	200	S	331	331	100	2			
89666	76.7S	163.0E	200	S	327	1	0	13	1.2	5.5	5.6
89811	66.7S	112.8E	1366	S	312	0	0	0	0.8	-4.5	4.6
89868	79.9S	170.0E	60	S	37	0	0	0	0.6	-4.6	4.6

TABLE 4A

MONTHLY MONITORING OF AIRCRAFT OBSERVATIONS
MONITORING CENTRE: EXETER
MONTH: Feb 06

Monitoring procedures

Period :One calendar month.

Data monitored :Statistics for each airline carrier.

Area monitored :90°N - 90°S, 180°W - 180°E.

Standard of comparison :Background field from UKMO global model.

Observation times :All hours combined.

Level(s) monitored :300.0 - 150.0 hPa

Elements monitored :TEMP in °C ; WIND in m s^{-1}

Parameters monitored

:N REP. :Number of observations received excluding duplicates.

:PG :Percentage of observations with gross errors.

:PR :Percentage of observations rejected by quality control including rejections from the duplicate check.

:PC :Percentage of observations with calm winds.

:RMS :Root Mean Square difference of observations from background values excluding those with gross errors in Temperature & vector wind.

:BIAS :Mean difference of observations from background values excluding those with gross errors in Temperature & Wind Speed.

GROSS ERROR LIMITS :10.0 °C ; 60 m s^{-1} Vector Wind

SELECTION CRITERIA :N REP ≥ 20

NB: All American ACARS data are grouped together and statistics are shown at the bottom of the table as "US ACARS".

	TEMPERATURE					WIND					
IDENT.	N.REP.	PG	PR	RMS	BIAS	N.REP.	PG	PR	PC	RMS	BIAS
AAH	2234	0	45	1.6	0.2	2214	0	45	0	6.7	0.8
AAL	8100	0	22	1.5	0.1	7755	0	23	0	6.9	0.7
AAR	642	0	6	1.8	-0.6	631	0	6	0	8.1	-0.7
ACA	3232	0	11	1.5	-0.2	2850	0	12	0	6.8	0.5
ACF	65	9	42	3.9	-0.1	34	0	47	0	22.4	-3.5
ACI	120	0	18	0.9	0.4	114	0	15	0	5.4	-0.3
AEA	996	1	2	1.6	0.2	837	0	3	0	8.6	0.3
AFL	397	2	5	1.8	0.2	210	0	30	0	9.0	0.6
AFR	4761	0	5	1.4	0.1	4629	0	5	0	6.3	0.5
AFZ	37860	0	11	1.7	1.2	37860	0	11	0	5.6	0.9
AJM	224	0	6	1.9	-0.5	188	1	7	0	8.6	0.2
AJX	269	0	9	1.8	0.4	272	0	9	0	7.8	0.2
AMT	1761	1	42	1.6	-0.1	1742	0	42	0	7.2	0.5
AMX	396	0	3	1.8	0.0	353	1	6	0	8.6	0.2
ANA	25	0	0	1.5	0.0	26	0	4	0	5.2	-0.5
ANZ	7533	0	31	1.2	0.3	7460	0	31	0	6.1	-0.2
ATN	84	0	100	3.4	-1.8	71	0	17	0	7.5	1.6
AUA	321	0	2	1.4	0.4	314	0	2	0	5.0	0.9
AVA	403	1	4	1.7	0.1	403	0	4	0	9.1	0.4
AVN	128	0	46	1.0	0.0	130	0	46	0	6.5	0.2
AWE	319	1	8	1.6	-0.7	321	0	8	0	7.2	1.3
AXF	97	2	42	0.8	0.3	97	0	41	0	4.6	0.0
AZA	365	1	79	2.6	1.1	335	1	5	0	9.5	-0.8
BAL	402	0	4	1.6	0.0	386	1	6	0	8.6	0.2
BAW	518	0	12	1.6	-0.2	390	0	11	0	6.7	0.7
BBR	157	1	3	1.3	-0.4	147	0	7	0	10.8	1.3
BHP	68	0	3	1.6	0.4	64	0	3	0	8.2	0.4
BMA	367	1	5	1.7	-0.7	334	1	4	0	6.3	0.9
BPA	583	1	79	2.8	1.3	552	1	9	0	11.1	0.2
BSK	39	8	18	1.6	0.8	27	0	15	0	12.0	1.7
BWA	390	1	5	2.0	-0.3	319	1	4	0	7.1	-0.1
CAL	31	6	16	1.9	-0.7	33	3	12	0	7.2	-0.9
CCA	316	0	16	2.6	-0.2	300	1	100	0	11.7	-1.3
CES	222	1	7	1.9	-0.2	226	1	7	0	8.7	0.6
CFC	30	0	0	1.5	0.0	31	3	13	0	10.0	2.3
CFG	988	1	9	1.9	0.2	846	1	10	0	10.9	-0.1
CFY	113	0	1	1.1	-0.3	107	0	1	0	4.0	0.8
CGD	52	0	0	1.3	-0.6	51	0	0	0	3.4	1.2
CGF	225	0	4	1.3	-0.4	217	0	4	0	4.1	0.8
CGH	396	0	1	1.3	-0.2	375	0	0	0	4.0	0.8
CKK	148	1	5	2.1	0.7	148	1	6	0	7.6	-0.2
CKS	327	3	34	1.9	0.3	271	0	38	0	9.2	-0.2
CLX	306	1	7	1.8	-0.7	152	1	100	0	8.6	-0.1
CNJ	30888	0	73	1.2	0.5	30888	0	73	0	4.6	0.5
COA	4424	0	6	1.4	0.0	4300	0	6	0	5.2	0.8
CRL	191	1	6	1.8	0.4	181	0	7	0	9.9	0.4
CSA	46	0	4	1.6	-0.5	34	0	0	0	6.6	0.9
CSD	56	0	5	2.0	0.2	40	0	8	0	7.3	1.1
CSN	115	3	17	2.4	0.1	117	1	11	0	8.7	0.2
CTM	28	0	7	1.5	-0.7	28	0	11	0	9.9	1.3
CUB	261	0	6	2.0	-0.4	198	0	100	0	11.6	1.3
DAB	876	0	3	1.2	-0.1	822	0	3	0	4.2	0.4
DAI	584	0	4	1.2	0.2	538	0	4	0	4.1	0.8
DAL	3478	0	30	1.7	0.3	3447	0	31	0	7.0	0.6
DLH	3452	0	5	1.3	0.0	3337	0	4	0	5.0	0.7
DRD	457	0	5	2.1	-0.4	453	0	4	0	7.8	0.3
EDW	79	3	16	2.1	-0.5	66	0	17	0	12.3	1.4
EEZ	158	2	11	2.3	0.0	151	0	9	0	9.6	0.3
EIA	302	1	23	3.2	1.1	285	1	100	0	16.0	2.4

	TEMPERATURE					WIND					
IDENT.	N.REP.	PG	PR	RMS	BIAS	N.REP.	PG	PR	PC	RMS	BIAS
ELY	382	1	3	1.5	0.3	339	0	3	0	5.6	0.6
ESS	128	1	100	3.2	1.3	35	0	6	0	7.6	1.2
EVA	236	0	5	1.6	0.3	237	0	4	0	4.8	0.5
FCA	148	1	100	1.7	0.8	133	2	7	0	8.5	0.5
FDX	1303	1	48	1.4	0.0	1180	0	49	0	7.6	0.4
FGI	202	0	1	1.4	-0.5	188	0	1	0	4.2	0.8
FGL	176	0	1	1.3	0.0	167	0	1	0	4.8	1.0
FGN	53	0	0	1.2	0.5	51	0	0	0	4.7	1.4
FGS	421	0	2	1.3	0.1	393	0	2	0	4.7	1.0
FGZ	36	0	3	1.1	0.2	34	0	3	0	4.3	0.8
FIF	26	4	4	0.8	0.0	22	5	5	0	5.5	1.0
FIN	234	1	6	1.4	-0.1	192	0	4	0	7.5	0.8
FJI	749	1	32	1.4	0.6	727	0	31	0	5.4	0.5
FOM	806	0	30	1.5	-0.5	802	0	29	0	5.2	0.7
FWI	551	2	8	1.8	-0.6	540	0	6	0	7.5	0.2
GCO	85	0	9	1.8	-0.4	78	0	100	0	10.4	3.0
GEC	410	0	22	1.7	0.1	402	0	23	0	9.1	0.7
GOJ	47	0	0	1.1	-0.1	45	0	0	0	4.7	1.1
GRL	68	1	1	1.3	0.0	47	0	0	0	4.4	0.9
GTI	69	0	6	2.3	0.5	61	0	8	0	8.8	0.4
GVA	50	0	2	1.0	-0.2	49	0	2	0	4.0	0.8
GVB	40	0	3	1.3	0.0	37	0	3	0	4.1	0.5
GVE	35	0	0	1.0	-0.2	30	0	0	0	3.4	0.5
GVF	107	0	0	1.3	-0.3	99	0	0	0	4.4	0.7
GVG	56	0	0	1.7	-1.0	51	0	0	0	5.3	0.4
GVH	23	0	0	1.3	-0.2	21	0	0	0	5.4	1.2
GVL	38	0	0	0.8	-0.1	36	0	0	0	4.4	-0.4
GVM	23	0	0	1.0	-0.2	20	0	0	0	3.4	1.3
GVR	130	0	2	1.1	0.0	122	0	2	0	4.1	0.5
GVS	24	0	4	1.1	-0.5	23	0	4	0	4.7	1.3
GVT	26	0	0	1.6	-0.2	23	0	0	0	4.2	0.4
GVW	85	0	4	1.2	-0.3	72	0	4	0	4.9	0.1
GVX	33	0	3	0.9	-0.1	31	0	3	0	3.5	0.5
GWW	57	0	4	1.6	-0.4	50	0	2	0	4.4	0.9
HAL	3900	0	39	1.9	0.3	3851	0	40	0	8.1	0.5
HBI	199	0	4	1.5	-0.3	185	0	4	0	5.3	1.0
HBJ	113	0	4	1.3	-0.5	104	0	5	0	3.8	1.1
HMY	85	1	45	1.7	0.0	85	1	45	0	7.9	1.1
IBE	3552	1	4	1.7	0.1	3504	0	4	0	7.5	0.5
ICE	719	1	9	1.7	0.0	474	0	12	0	8.0	0.7
IWD	437	0	5	2.2	-0.7	436	0	5	0	8.1	0.6
JAL	866	1	6	1.7	0.3	849	0	7	0	7.8	0.1
JAZ	1189	0	4	1.5	0.4	1184	0	6	0	8.5	0.3
JBU	42	2	2	1.1	-0.3	49	0	0	0	4.9	0.1
JST	571	0	27	1.1	0.0	572	0	26	0	5.1	0.4
KAC	96	0	0	1.2	0.5	94	0	0	0	5.1	1.6
KAI	34	0	41	2.9	2.2	33	0	45	0	12.0	1.1
KAL	1164	1	9	1.6	-0.2	1160	0	10	0	8.0	-0.3
KLM	1276	0	7	1.8	0.1	1045	0	10	0	9.1	0.5
LAN	703	0	2	1.5	-0.3	703	0	2	0	4.7	0.5
LCO	38	3	13	1.2	0.3	35	0	11	0	7.8	-0.5
LNE	216	2	5	1.6	0.1	216	0	4	0	8.8	0.4
LNR	441	0	43	1.2	-0.3	410	0	43	0	4.0	0.7
LOT	298	0	2	1.8	-1.0	177	0	4	0	5.9	0.2
LTU	777	1	5	1.8	-0.1	616	0	6	0	9.0	0.7
LVG	311	1	9	1.9	0.1	271	0	10	0	9.6	0.9
MAS	319	1	11	2.0	0.1	311	1	8	0	6.9	0.6
MON	35	0	6	2.2	-0.8	32	0	16	0	14.4	0.9
MPD	412	0	3	1.7	0.1	399	0	4	0	7.8	0.5

	TEMPERATURE					WIND					
IDENT.	N.REP.	PG	PR	RMS	BIAS	N.REP.	PG	PR	PC	RMS	BIAS
MPH	247	1	4	1.7	-1.0	204	1	6	0	9.1	-0.7
MSR	99	1	3	1.3	0.3	96	0	2	0	5.9	0.5
MXA	25	8	32	3.8	-0.8	25	4	20	0	10.4	1.7
MXJ	207	1	11	1.9	-0.1	119	0	1	0	7.4	1.2
MYT	158	0	6	1.9	-0.1	128	1	7	0	9.3	-0.2
NAO	42	0	12	1.5	-0.7	36	0	11	0	8.1	2.3
NCA	808	0	4	1.5	-0.1	610	0	6	0	7.8	0.0
NOS	179	1	14	2.3	-0.1	138	1	16	0	11.2	0.6
NVR	45	0	7	2.1	-0.8	25	0	8	0	10.4	0.2
NWA	7978	1	18	1.7	0.1	7840	0	19	0	7.7	0.4
NZL	5366	0	9	1.0	0.0	5366	0	9	0	4.6	0.1
OAE	370	1	26	1.7	-0.3	261	0	37	0	9.9	1.4
OOM	96	0	10	2.4	1.0	58	0	10	0	4.7	0.6
OYK	257	0	40	1.4	-0.3	245	0	40	0	3.9	0.7
PAC	227	1	7	2.0	-0.3	197	1	7	0	9.3	0.5
PAL	1419	0	4	1.6	-0.1	1409	0	7	0	8.3	0.7
PBI	1141	0	45	1.3	0.0	1135	0	45	0	6.2	0.2
PLM	225	0	6	2.0	1.1	201	1	8	0	8.0	0.4
QFA	3881	0	54	1.3	0.4	3848	0	54	0	5.8	-0.2
RAM	374	1	5	2.0	0.2	285	1	8	0	11.2	0.3
RCH	341	1	100	3.4	-0.6	257	0	100	0	12.9	0.9
RYN	34	0	38	1.6	-0.3	30	0	40	0	6.3	1.4
RZO	578	1	6	2.0	-0.3	559	1	6	0	9.0	0.9
SAA	125	0	10	2.0	-0.8	125	0	9	0	8.8	-0.3
SAS	875	0	58	1.2	-0.1	827	0	58	0	4.4	0.7
SER	472	0	42	1.2	0.1	432	0	42	0	4.2	0.6
SEU	448	2	10	2.0	-0.3	420	0	8	0	9.7	0.4
SIA	698	0	2	1.3	0.1	694	0	2	0	4.7	0.2
SLM	155	0	4	2.0	0.4	154	1	3	0	6.1	0.6
SOO	35	0	0	1.5	0.8	36	0	6	0	9.2	-0.4
SQC	350	0	1	1.4	-0.1	343	0	1	0	5.3	0.1
SVH	319	0	8	1.4	1.0	319	0	7	0	5.1	0.4
SWR	1446	0	4	1.4	-0.3	1414	0	4	0	5.1	0.7
TAG	27	7	41	2.1	-0.7	24	0	38	0	5.9	1.8
TAM	50	6	42	2.6	1.3	50	2	44	0	16.5	-2.3
TAP	642	1	2	1.7	-0.5	610	1	4	0	8.8	0.7
TCV	41	0	100	4.0	3.7	41	0	7	0	10.0	2.9
TCX	206	0	0	1.2	0.0	201	0	1	0	6.1	1.4
TFL	151	0	7	1.4	-0.2	116	1	8	0	9.4	0.0
THA	184	0	8	1.1	0.4	184	0	8	0	4.2	0.5
THT	1492	0	27	1.1	0.3	1437	0	27	0	7.9	-3.6
TSC	37	3	5	2.0	0.0	23	0	0	0	6.8	0.5
TSO	40	10	15	2.7	0.2	39	3	15	0	11.7	1.7
TUB	62	2	6	1.7	-0.2	35	0	9	0	12.4	0.2
UAE	953	0	5	1.3	0.2	941	0	5	0	4.6	0.7
UAL	12503	0	34	1.5	-0.1	12699	0	35	0	6.8	0.9
UAO	53	0	100	1.1	-0.3	53	0	100	0	4.7	-1.6
UPS	1520	0	58	1.7	-0.1	1160	0	59	0	7.9	0.3
USA	1561	0	4	1.3	0.0	1511	0	3	0	5.0	0.8
VIR	2461	0	2	1.4	-0.2	2376	0	2	0	5.3	0.5
VLE	38	0	16	3.1	-0.5	35	0	17	0	10.0	-1.2
VRG	39	5	51	3.0	1.5	40	0	45	0	13.1	-1.0
VVJ	34	3	18	2.3	-1.3	34	0	18	0	11.3	-0.8
VVR	38	0	37	2.2	0.1	34	0	35	0	7.6	1.6
WHT	114	2	4	1.7	-0.1	101	0	5	0	10.8	-0.4
WJA	29	0	38	1.6	-0.2	37	0	35	0	6.4	0.2
WOA	252	1	7	1.9	0.5	212	0	6	0	9.8	1.0
XLA	126	1	7	2.3	1.3	115	0	7	0	9.6	1.2
ZKN	81	0	0	1.1	0.0	69	0	0	0	4.0	0.6

	TEMPERATURE					WIND				
IDENT.	N.REP.	PG	PR	RMS	BIAS	N.REP.	PG	PR	PC	RMS	BIAS
ZKS	84	0	0	1.1	-0.2	77	0	0	0	4.3	0.8
4XE	27	0	4	1.0	0.2	25	0	4	0	5.5	0.3
9VS	77	0	8	1.1	0.0	72	0	8	0	4.3	0.4

	TEMPERATURE					WIND					
IDENT.	N.REP.	PG	PR	RMS	BIAS	N.REP.	PG	PR	PC	RMS	BIAS
AU	48935	0	18	1.2	0.6	48942	0	17	0	5.0	0.5
B-	17824	0	62	1.7	0.5	13615	1	68	0	5.9	0.5
EU	238837	0	27	1.2	0.3	238788	0	27	0	4.3	0.3
HK	7820	0	9	1.3	0.1	7820	0	9	0	4.9	0.4
JP	56453	0	66	1.9	0.8	56453	0	65	0	5.2	0.3
LN	40	0	35	1.9	-0.6	36	0	33	0	9.3	3.9
MK	2414	0	4	2.0	1.8	2414	0	4	0	6.6	1.5
SA	4872	0	9	1.1	0.7	4872	0	9	0	4.9	0.9
TN	44	0	30	2.5	0.8	51	0	31	0	7.0	1.2
UA	312414	0	99	1.4	-0.2	312224	0	99	0	5.1	0.7

	TEMPERATURE					WIND					
IDENT.	N.REP.	PG	PR	RMS	BIAS	N.REP.	PG	PR	PC	RMS	BIAS
N	5914	3	15	1.5	-0.1	5349	0	14	0	5.5	0.7
S	21	0	5	1.2	0.4	20	0	5	0	4.4	0.5
US AMDAR	1045712	0	67	1.4	0.2	1045695	0	67	0	5.4	0.7

TABLE 4B

MONTHLY MONITORING OF AIRCRAFT OBSERVATIONS
MONITORING CENTRE: EXETER
MONTH: Feb 06

Monitoring procedures

Period :One calendar month.

Data monitored :Statistics for each airline carrier.

Area monitored :90°N - 90°S, 180°W - 180°E.

Standard of comparison :Background field from UKMO global model.

Observation times :All hours combined.

Level(s) monitored :1000.0 – 300.1 hPa

Elements monitored :TEMP in °C ; WIND in m s^{-1}

Parameters monitored

:N REP. :Number of observations received excluding duplicates.

:PG :Percentage of observations with gross errors.

:PR :Percentage of observations rejected by quality control including rejections from the duplicate check.

:PC :Percentage of observations with calm winds.

:RMS :Root Mean Square difference of observations from background values excluding those with gross errors in Temperature & vector wind.

:BIAS :Mean difference of observations from background values excluding those with gross errors in Temperature & Wind Speed.

GROSS ERROR LIMITS :10.0 °C ; 60 m s^{-1} Vector Wind

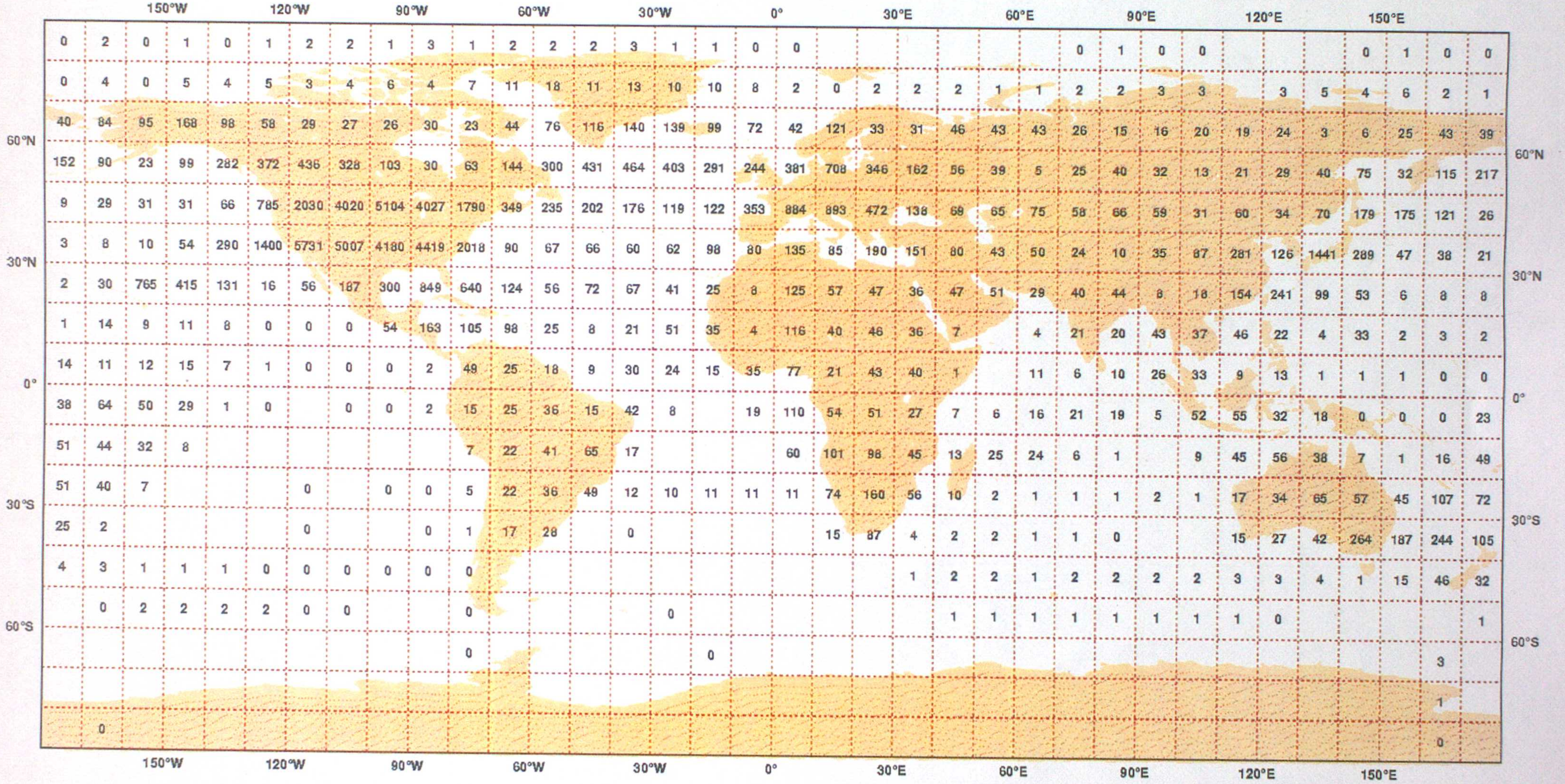
SELECTION CRITERIA :N REP $\geq$ 20

NB: All American ACARS data are grouped together and statistics are shown at the bottom of the table as "US ACARS".

	TEMPERATURE					WIND					
IDENT.	N.REP.	PG	PR	RMS	BIAS	N.REP.	PG	PR	PC	RMS	BIAS
AAL	172	1	38	1.4	0.0	163	0	39	0	6.7	1.4
ACA	94	1	18	1.7	-0.2	84	1	17	0	8.8	0.1
AFR	61	2	10	1.7	0.2	55	0	5	0	5.9	1.1
AFZ	38889	0	67	1.4	-0.3	38889	0	67	0	4.3	0.3
AMT	28	0	14	1.2	0.1	25	0	16	0	6.9	-0.3
ANZ	264	1	15	1.1	0.3	264	0	15	0	4.2	0.0
AXF	52	0	52	1.1	0.7	49	0	53	0	6.3	-0.1
CFC	29	7	7	1.4	-0.3	20	0	0	0	5.4	0.7
CKS	106	0	28	1.4	-0.2	84	0	42	0	10.1	1.6
CNJ	666746	0	86	1.7	0.7	666746	0	85	0	5.4	-0.4
DAL	125	0	36	1.6	0.2	126	0	37	0	7.2	1.3
EIA	28	0	29	3.0	0.0	21	0	100	0	24.1	-2.0
FDX	599	1	40	1.4	0.4	336	0	38	0	9.1	0.1
GCO	61	0	10	1.8	0.1	57	2	100	0	11.7	0.1
GEC	241	0	18	1.7	0.1	214	1	15	0	10.5	0.0
HAL	706	2	43	1.8	0.2	700	0	41	0	6.7	1.0
IBE	41	2	10	1.3	0.4	41	0	12	0	10.5	0.2
ICE	70	0	7	1.6	-0.2	47	0	6	0	5.4	-0.1
JAL	35	0	3	1.5	-0.5	35	0	3	0	6.1	-0.7
JKK	22	0	14	2.8	-0.9	23	4	13	0	13.6	0.0
KAL	24	0	8	1.3	-0.5	24	0	8	0	5.2	0.3
KIW	46	7	43	2.9	0.7	46	0	35	0	5.5	0.9
LAN	43	2	2	1.2	0.1	43	0	0	0	3.4	0.8
NCA	70	0	1	1.5	0.2	57	0	2	0	6.1	-0.6
NOW	23	4	4	2.1	1.2	25	0	0	0	7.5	-0.4
NWA	420	2	33	1.4	0.0	418	0	32	0	7.9	0.1
NZL	23141	0	57	1.1	-0.1	23141	0	57	0	4.3	0.2
OAE	49	0	18	1.0	0.4	36	0	33	0	10.7	0.7
OCE	25	4	12	3.0	1.9	25	0	0	0	6.8	1.4
PAC	44	0	2	1.6	0.1	34	3	15	0	12.1	0.6
PAL	22	0	14	1.3	0.4	22	0	14	0	6.8	2.0
QFA	121	1	39	1.5	0.1	119	0	37	0	5.1	0.0
RRR	36	8	25	2.8	0.8	30	0	10	0	10.5	1.3
SIA	63	0	2	1.2	0.2	63	0	2	0	4.4	-0.1
SKI	228	3	24	2.7	-0.3	346	1	41	0	14.1	-0.9
SVH	23858	0	59	1.6	1.0	23858	0	59	0	4.3	0.5
THT	189	0	55	1.1	-0.4	148	0	49	0	4.0	-0.7
UAE	80	0	1	1.0	0.4	80	0	1	0	3.8	0.3
UAL	298	4	32	1.3	-0.2	329	0	32	0	9.4	2.0
UAO	42	0	100	0.7	0.2	42	0	100	0	4.3	0.3
UPS	235	0	50	1.3	0.0	134	0	53	0	6.2	-0.1
WOA	154	1	9	1.3	0.4	109	0	19	0	12.9	2.8

	TEMPERATURE					WIND					
IDENT.	N.REP.	PG	PR	RMS	BIAS	N.REP.	PG	PR	PC	RMS	BIAS
AU	52132	0	67	1.2	0.4	52143	0	65	0	3.9	0.1
B-	68792	0	73	1.3	0.4	62025	0	74	0	4.5	0.2
EU	576792	0	67	1.0	0.1	572764	0	67	0	3.7	0.1
HK	22370	0	87	1.4	0.5	22370	0	87	0	4.5	-0.1
JP	260765	0	81	1.4	0.4	260765	0	81	0	4.7	0.3
MK	2214	0	50	1.2	0.6	2213	0	50	0	4.2	0.5
SA	3733	0	71	1.3	0.3	3733	0	71	0	4.1	0.5
UA	239082	0	99	1.1	-0.3	238751	0	99	0	4.2	0.4
US AMDAR	1794873	0	81	1.2	0.2	1790724	0	82	0	4.2	0.3

Figure 3a. AIRCRAFT 300 - 150 hPa mean daily count. FEBRUARY 2006
Observations with O-B vector difference greater than 60 ms-1 excluded
Global average number of observations in 24 hours = 68882



0	2	0	1	0	1	2	2	1	3	1	2	2	2	3	1	1	0	0							0	1	0	0				0	1	0	0
0	4	0	5	4	5	3	4	6	4	7	11	18	11	13	10	10	8	2	0	2	2	2	1	1	2	2	3	3		3	5	4	6	2	1
40	84	95	168	98	58	29	27	26	30	23	44	76	116	140	139	99	72	42	121	33	31	46	43	43	26	15	16	20	19	24	3	6	25	43	39
152	90	23	99	282	372	436	328	103	30	63	144	300	431	464	403	291	244	381	708	346	162	56	39	5	25	40	32	13	21	29	40	75	32	115	217
9	29	31	31	66	785	2030	4020	5104	4027	1790	349	235	202	176	119	122	353	884	893	472	138	68	65	75	58	66	59	31	60	34	70	179	175	121	26
3	8	10	54	290	1400	5731	5007	4180	4419	2018	90	67	66	60	62	98	80	135	85	190	151	80	43	50	24	10	35	87	281	126	1441	289	47	38	21
2	30	765	415	131	16	56	187	300	849	640	124	56	72	67	41	25	8	125	57	47	36	47	51	29	40	44	8	18	154	241	99	53	6	8	8
1	14	9	11	8	0	0	0	54	163	105	98	25	8	21	51	35	4	116	40	46	36	7		4	21	20	43	37	46	22	4	33	2	3	2
14	11	12	15	7	1	0	0	0	2	49	25	18	9	30	24	15	35	77	21	43	40	1		11	6	10	26	33	9	13	1	1	1	0	0
38	64	50	29	1	0		0	0	2	15	25	36	15	42	8		19	110	54	51	27	7	6	16	21	19	5	52	55	32	18	0	0	0	23
51	44	32	8							7	22	41	65	17				60	101	98	45	13	25	24	6	1		9	45	56	38	7	1	16	49
51	40	7				0		0	0	5	22	36	49	12	10	11	11	11	74	160	56	10	2	1	1	1	2	1	17	34	65	57	45	107	72
25	2					0			0	1	17	28		0					15	87	4	2	2	1	1	0			15	27	42	264	187	244	105
4	3	1	1	1	0	0	0	0	0	0											1	2	2	1	2	2	2	2	3	3	4	1	15	46	32
	0	2	2	2	2	0	0			0					0							1	1	1	1	1	1	1	1	0					1
										0						0																		3	
																																		1	
	0																																	0	

Figure 3b. AIRCRAFT 1000 - 301 hPa mean daily count. FEBRUARY 2006
Observations with O-B vector difference greater than 60 ms-1 excluded
Global average number of observations in 24 hours = 134385

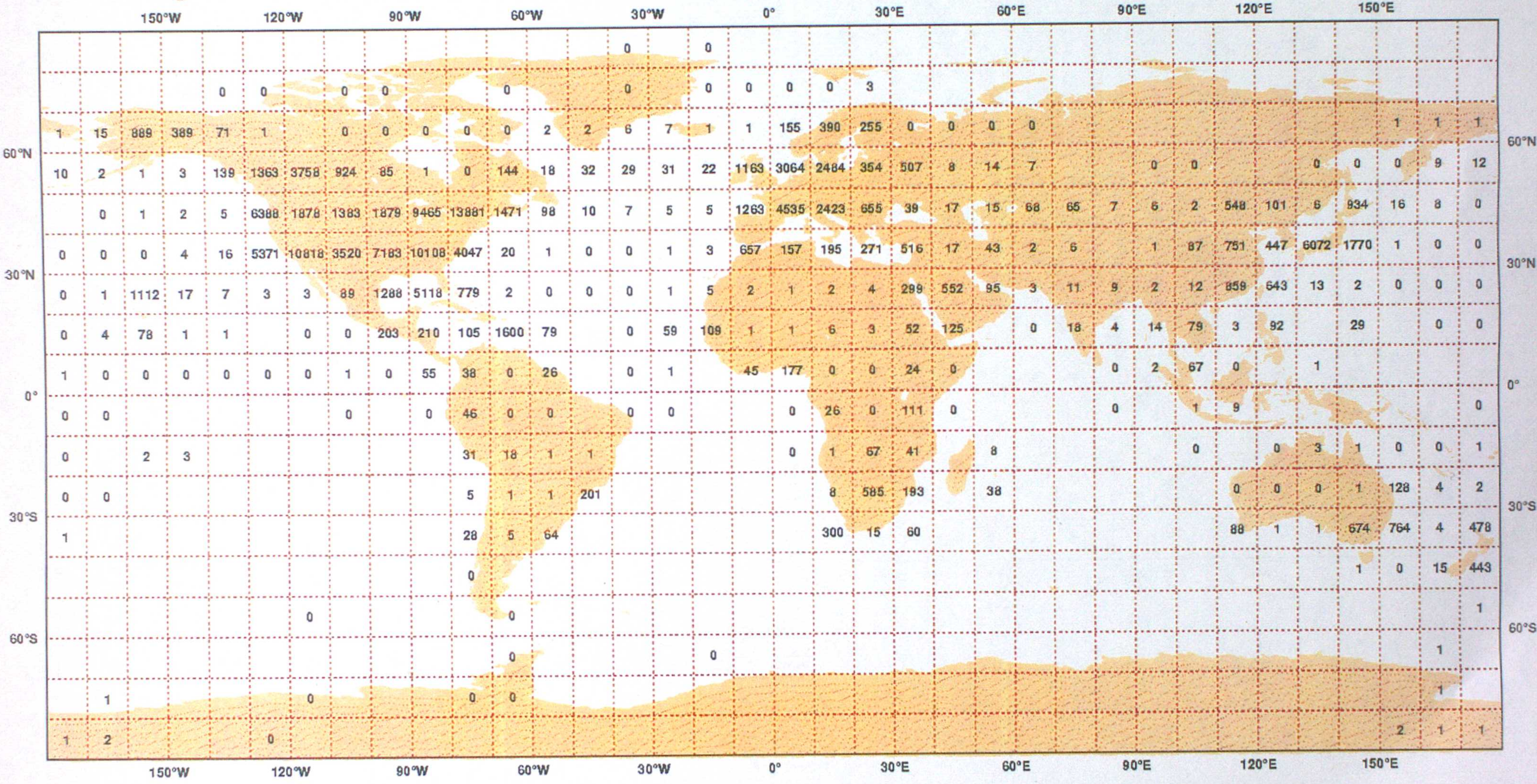

150°W 120°W 90°W 60°W 30°W 0° 30°E 60°E 90°E 120°E 150°E
60°N
30°N
0°
30°S
60°S
0 0
0 0 0 0 0 0 0 0 0 0 0 3
1 15 889 389 71 1 0 0 0 0 0 2 2 6 7 1 1 155 390 255 0 0 0 0 1 1 1
10 2 1 3 139 1363 3758 924 85 1 0 144 18 32 29 31 22 1163 3064 2484 354 507 8 14 7 0 0 0 0 0 9 12
0 1 2 5 6388 1878 1383 1879 9465 13881 1471 98 10 7 5 5 1263 4535 2423 655 39 17 15 68 65 7 6 2 548 101 6 934 16 8 0
0 0 0 4 16 5371 10818 3520 7183 10108 4047 20 1 0 0 1 3 657 157 195 271 516 17 43 2 6 1 87 751 447 6072 1770 1 0 0
0 1 1112 17 7 3 3 89 1288 5118 779 2 0 0 0 1 5 2 1 2 4 299 552 95 3 11 9 2 12 859 643 13 2 0 0 0
0 4 78 1 1 0 0 203 210 105 1600 79 0 59 109 1 1 6 3 52 125 0 18 4 14 79 3 92 29 0 0
1 0 0 0 0 0 0 1 0 55 38 0 26 0 1 45 177 0 0 24 0 0 2 67 0 1
0 0 0 0 46 0 0 0 0 0 26 0 111 0 0 1 9 0
0 2 3 31 18 1 1 0 1 67 41 8 0 0 3 1 0 0 1
0 0 5 1 1 201 8 585 193 38 0 0 0 1 128 4 2
1 28 5 64 300 15 60 88 1 1 674 764 4 478
0 1 0 15 443
0 0 1
0 0 1
1 0 0 0 1
1 2 0 2 1 1

Figure 4a. AIRCRAFT 300 - 150 hPa mean winds. FEBRUARY 2006
Observations with O-B vector difference greater than 60 ms-1 excluded
Arrows are plotted where greater than 30 obs are present

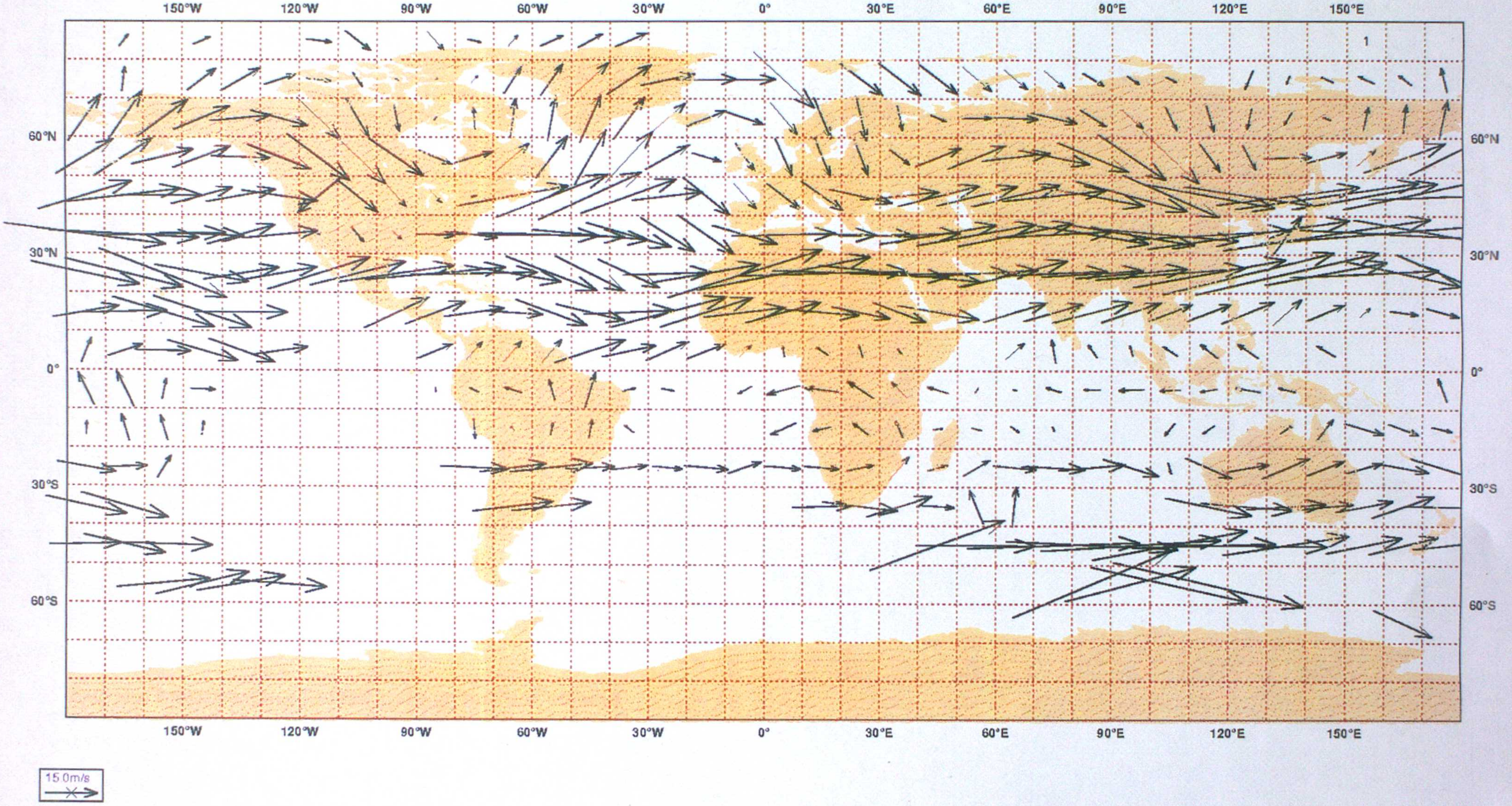

150°W
120°W
90°W
60°W
30°W
0°
30°E
60°E
90°E
120°E
150°E
60°N
30°N
0°
30°S
60°S
1
15.0m/s

Figure 4b. AIRCRAFT 1000 - 301 hPa mean winds. FEBRUARY 2006
Observations with O-B vector difference greater than 60 ms-1 excluded
Arrows are plotted where greater than 30 obs are present

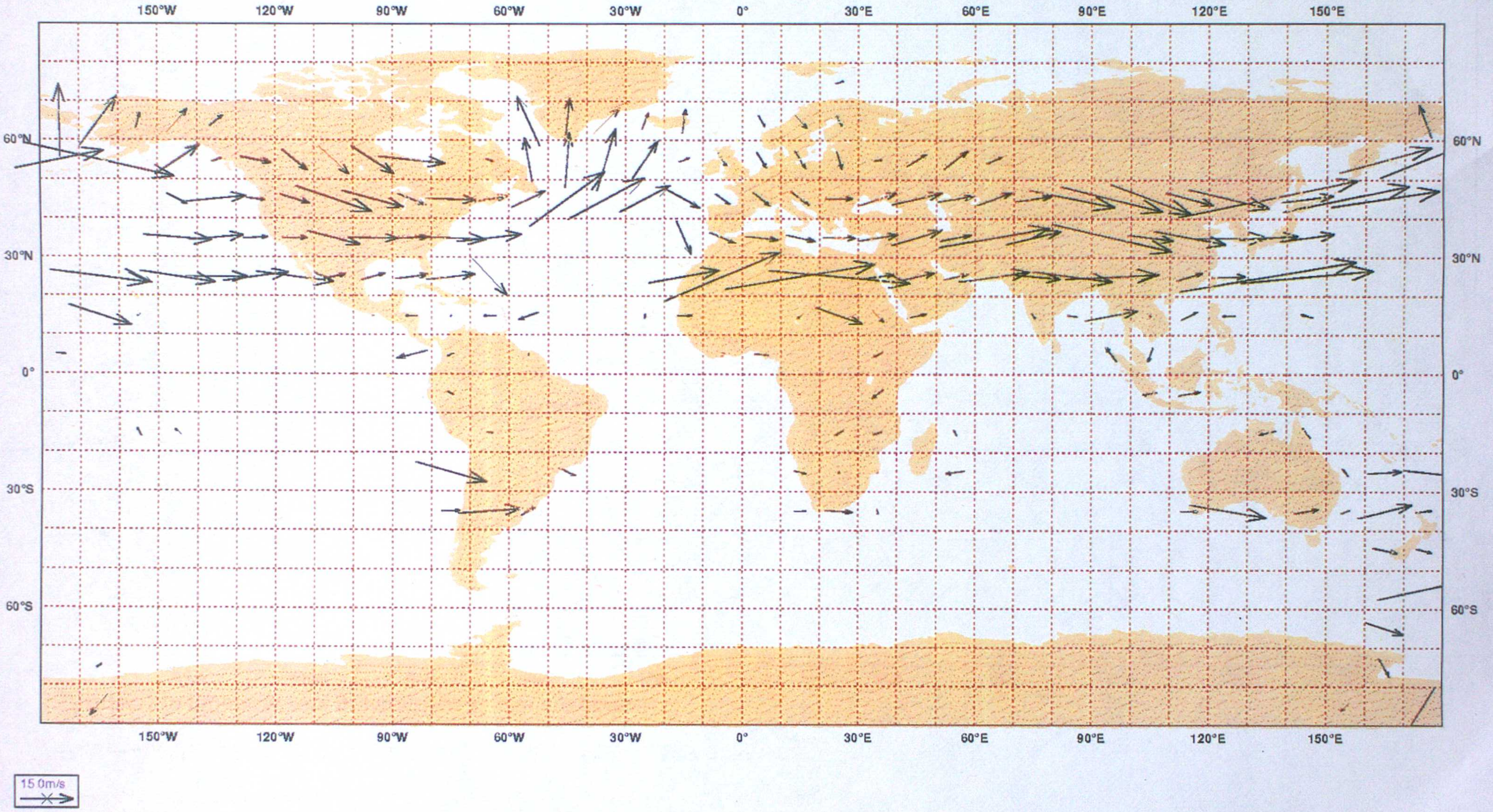

150°W
120°W
90°W
60°W
30°W
0°
30°E
60°E
90°E
120°E
150°E
60°N
30°N
0°
30°S
60°S
15.0m/s

Figure 5a. AIRCRAFT 300 - 150 hPa mean O-B winds. FEBRUARY 2006
Observations with O-B vector difference greater than 60 ms-1 excluded
Arrows are plotted where greater than 30 obs are present

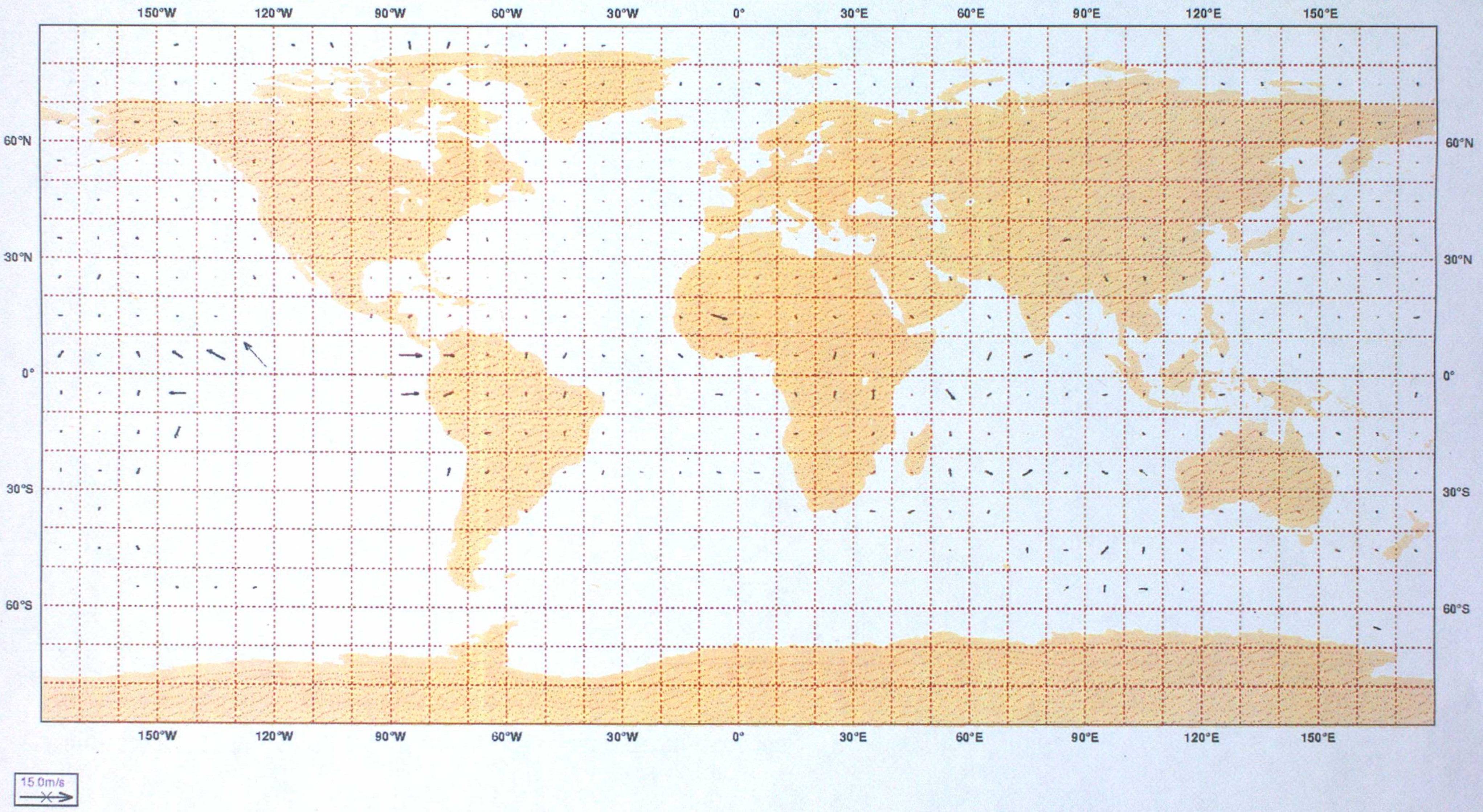

150°W
120°W
90°W
60°W
30°W
0°
30°E
60°E
90°E
120°E
150°E
60°N
30°N
0°
30°S
60°S
15.0m/s

Figure 5b. AIRCRAFT 1000 - 301 hPa mean O-B winds. FEBRUARY 2006
Observations with O-B vector difference greater than 60 ms-1 excluded
Arrows are plotted where greater than 30 obs are present

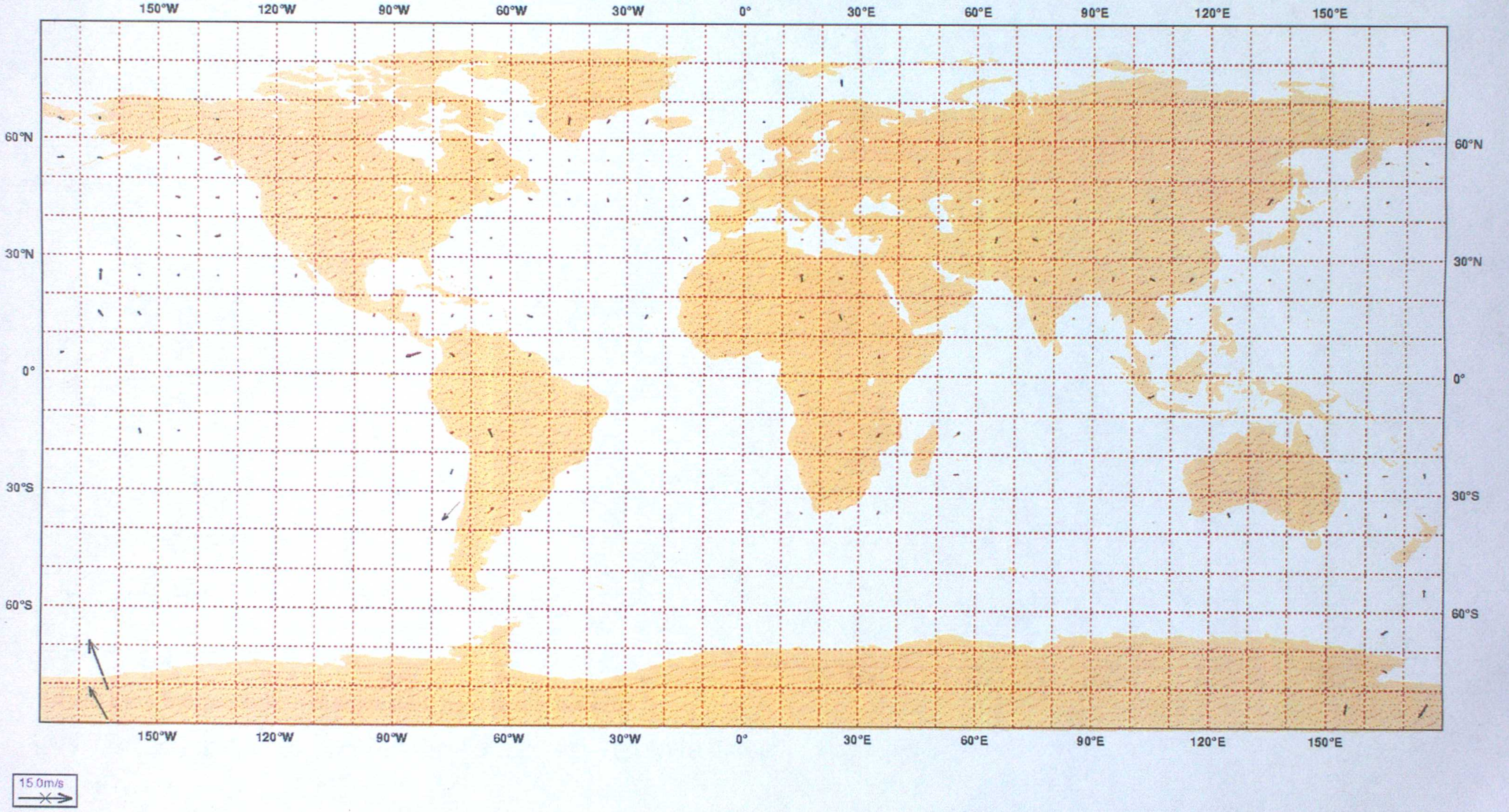
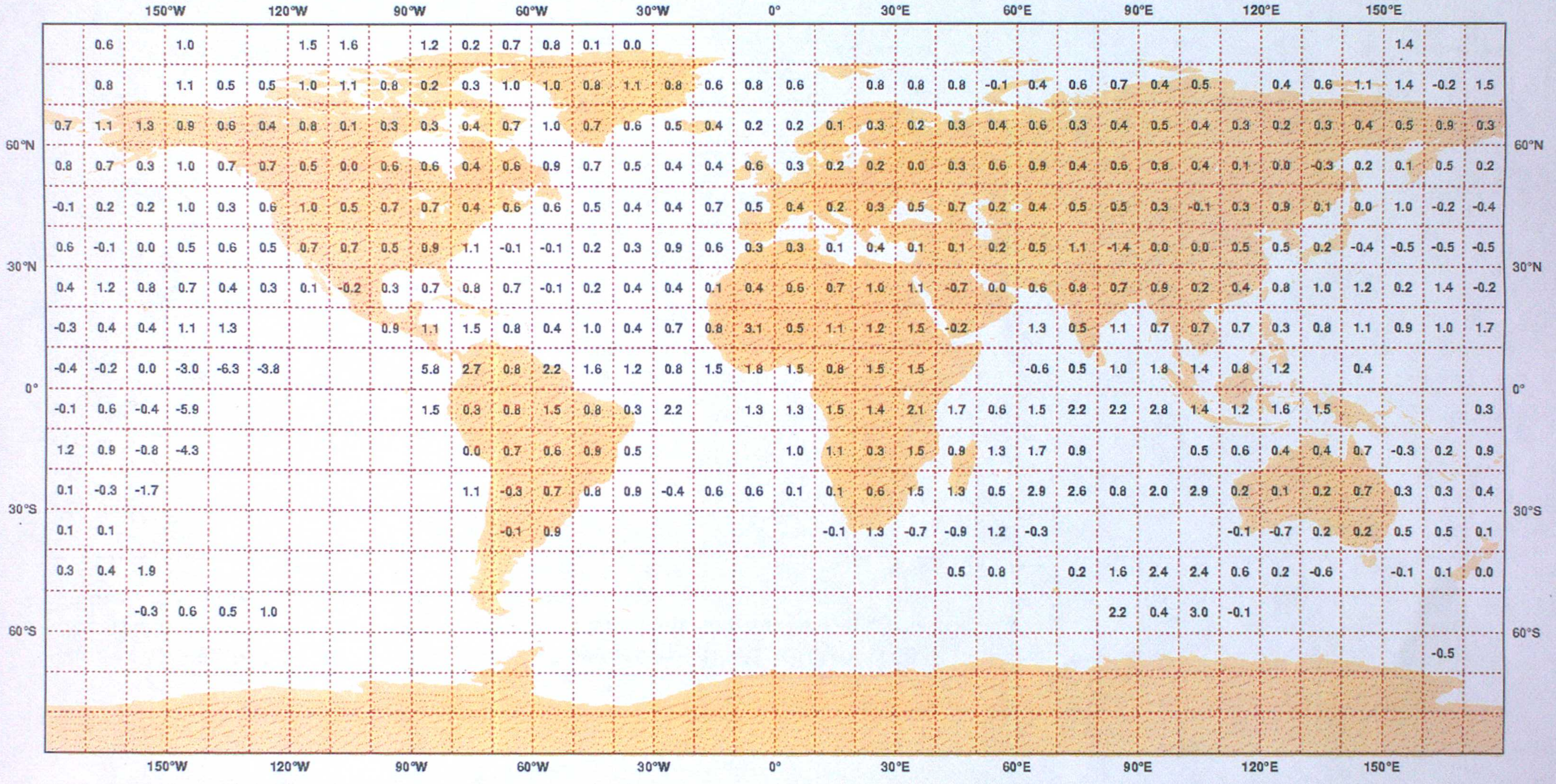

150°W
120°W
90°W
60°W
30°W
0°
30°E
60°E
90°E
120°E
150°E
60°N
30°N
0°
30°S
60°S
15.0m/s

Figure 6a. AIRCRAFT 300 - 150 hPa mean O-B speeds (ms-1). FEBRUARY 2006
Observations with O-B vector difference greater than 60 ms-1 excluded
Values are printed where greater than 30 obs are present



	0.6		1.0			1.5	1.6		1.2	0.2	0.7	0.8	0.1	0.0																			1.4		
	0.8		1.1	0.5	0.5	1.0	1.1	0.8	0.2	0.3	1.0	1.0	0.8	1.1	0.8	0.6	0.8	0.6		0.8	0.8	0.8	-0.1	0.4	0.6	0.7	0.4	0.5		0.4	0.6	1.1	1.4	-0.2	1.5
0.7	1.1	1.3	0.9	0.6	0.4	0.8	0.1	0.3	0.3	0.4	0.7	1.0	0.7	0.6	0.5	0.4	0.2	0.2	0.1	0.3	0.2	0.3	0.4	0.6	0.3	0.4	0.5	0.4	0.3	0.2	0.3	0.4	0.5	0.9	0.3
0.8	0.7	0.3	1.0	0.7	0.7	0.5	0.0	0.6	0.6	0.4	0.6	0.9	0.7	0.5	0.4	0.4	0.6	0.3	0.2	0.2	0.0	0.3	0.6	0.9	0.4	0.6	0.8	0.4	0.1	0.0	-0.3	0.2	0.1	0.5	0.2
-0.1	0.2	0.2	1.0	0.3	0.6	1.0	0.5	0.7	0.7	0.4	0.6	0.6	0.5	0.4	0.4	0.7	0.5	0.4	0.2	0.3	0.5	0.7	0.2	0.4	0.5	0.5	0.3	-0.1	0.3	0.9	0.1	0.0	1.0	-0.2	-0.4
0.6	-0.1	0.0	0.5	0.6	0.5	0.7	0.7	0.5	0.9	1.1	-0.1	-0.1	0.2	0.3	0.9	0.6	0.3	0.3	0.1	0.4	0.1	0.1	0.2	0.5	1.1	-1.4	0.0	0.0	0.5	0.5	0.2	-0.4	-0.5	-0.5	-0.5
0.4	1.2	0.8	0.7	0.4	0.3	0.1	-0.2	0.3	0.7	0.8	0.7	-0.1	0.2	0.4	0.4	0.1	0.4	0.6	0.7	1.0	1.1	-0.7	0.0	0.6	0.8	0.7	0.9	0.2	0.4	0.8	1.0	1.2	0.2	1.4	-0.2
-0.3	0.4	0.4	1.1	1.3				0.9	1.1	1.5	0.8	0.4	1.0	0.4	0.7	0.8	3.1	0.5	1.1	1.2	1.5	-0.2		1.3	0.5	1.1	0.7	0.7	0.7	0.3	0.8	1.1	0.9	1.0	1.7
-0.4	-0.2	0.0	-3.0	-6.3	-3.8				5.8	2.7	0.8	2.2	1.6	1.2	0.8	1.5	1.8	1.5	0.8	1.5	1.5			-0.6	0.5	1.0	1.8	1.4	0.8	1.2		0.4			
-0.1	0.6	-0.4	-5.9						1.5	0.3	0.8	1.5	0.8	0.3	2.2		1.3	1.3	1.5	1.4	2.1	1.7	0.6	1.5	2.2	2.2	2.8	1.4	1.2	1.6	1.5				0.3
1.2	0.9	-0.8	-4.3							0.0	0.7	0.6	0.9	0.5				1.0	1.1	0.3	1.5	0.9	1.3	1.7	0.9			0.5	0.6	0.4	0.4	0.7	-0.3	0.2	0.9
0.1	-0.3	-1.7								1.1	-0.3	0.7	0.8	0.9	-0.4	0.6	0.6	0.1	0.1	0.6	1.5	1.3	0.5	2.9	2.6	0.8	2.0	2.9	0.2	0.1	0.2	0.7	0.3	0.3	0.4
0.1	0.1										-0.1	0.9							-0.1	1.3	-0.7	-0.9	1.2	-0.3					-0.1	-0.7	0.2	0.2	0.5	0.5	0.1
0.3	0.4	1.9																				0.5	0.8		0.2	1.6	2.4	2.4	0.6	0.2	-0.6		-0.1	0.1	0.0
		-0.3	0.6	0.5	1.0																					2.2	0.4	3.0	-0.1						
																																		-0.5	

Figure 6b. AIRCRAFT 1000 - 301 hPa mean O-B speeds (ms-1). FEBRUARY 2006
Observations with O-B vector difference greater than 60 ms-1 excluded
Values are printed where greater than 30 obs are present

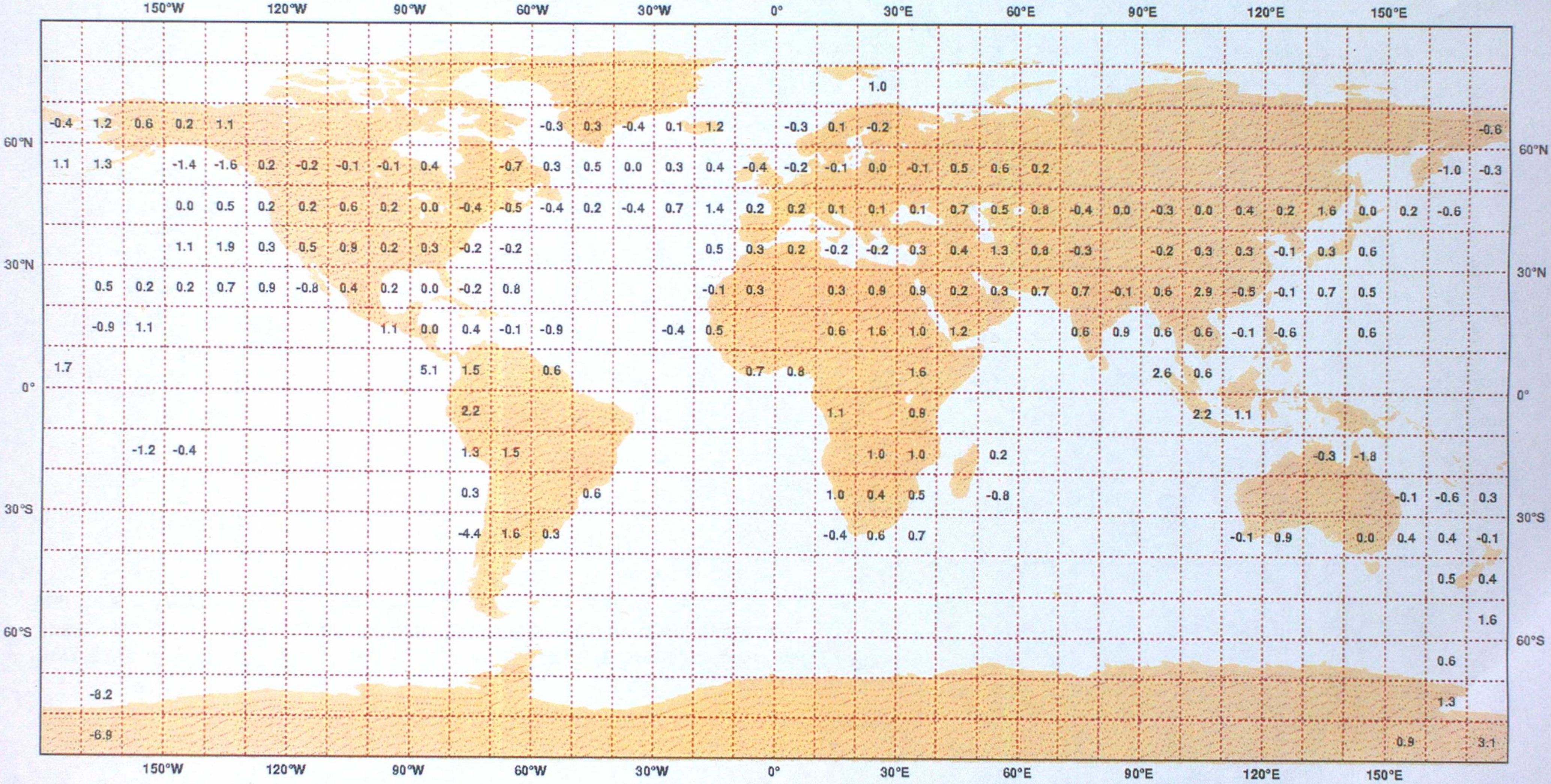
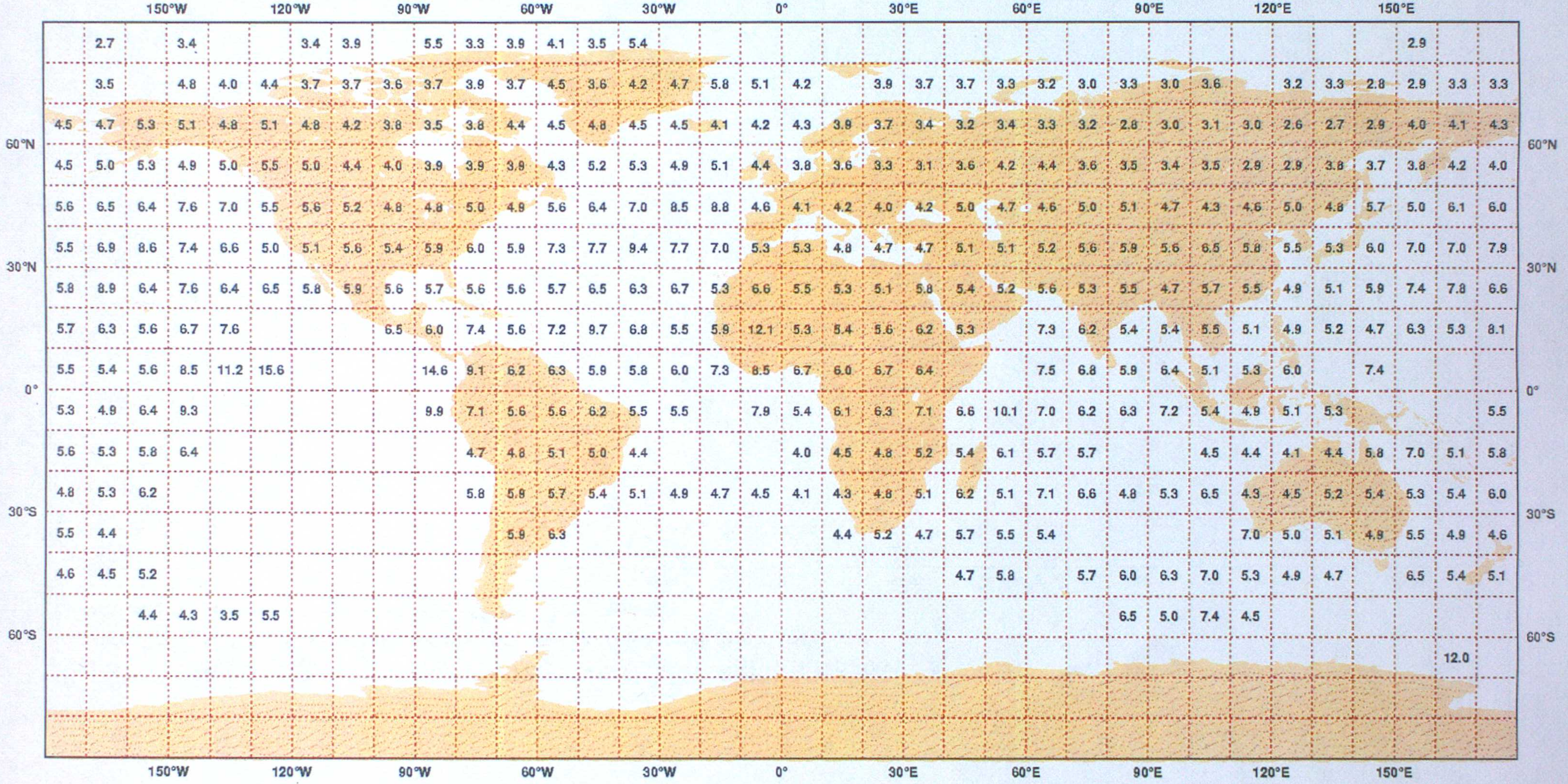
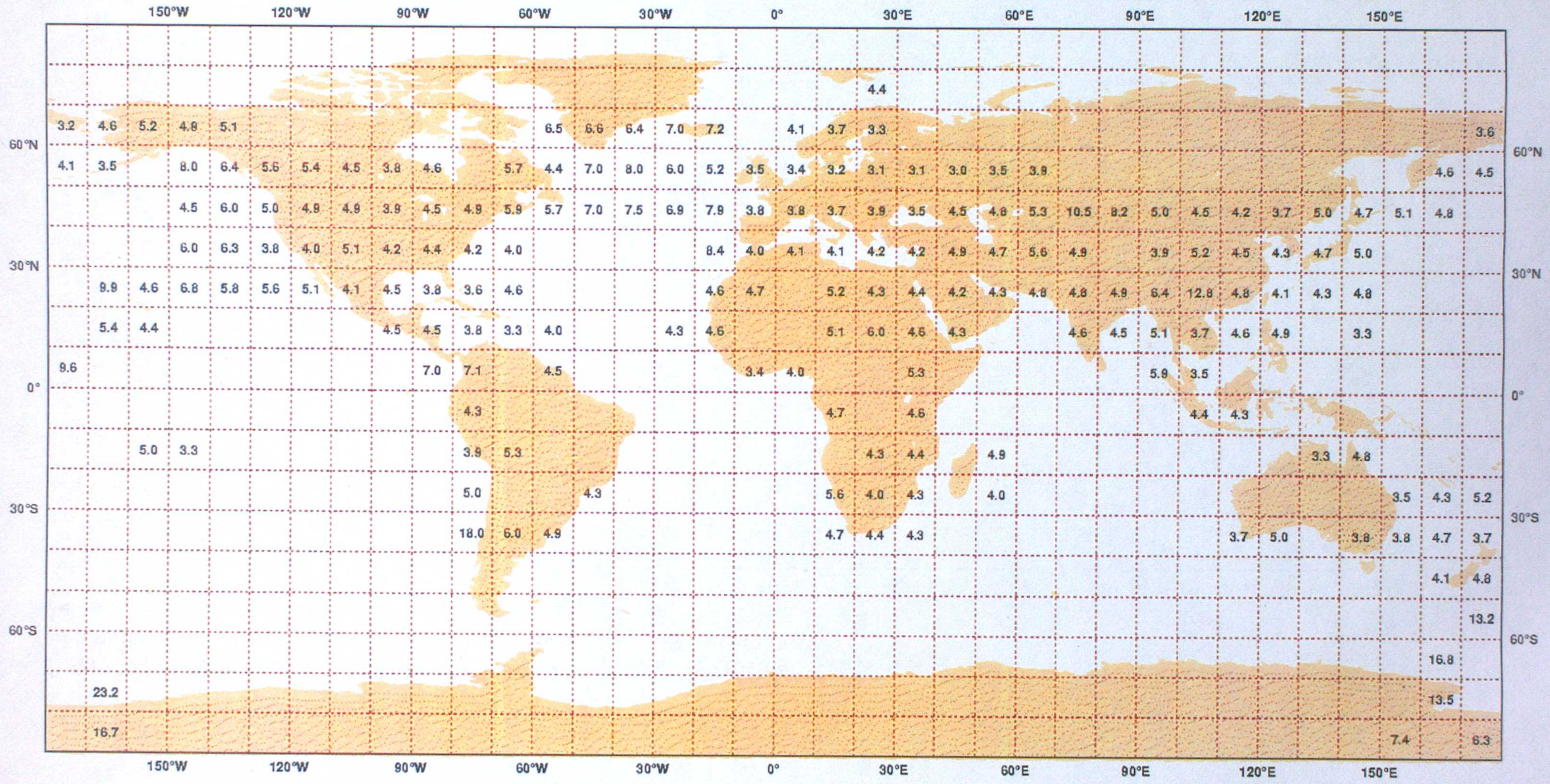

150°W 120°W 90°W 60°W 30°W 0° 30°E 60°E 90°E 120°E 150°E
60°N 30°N 0° 30°S 60°S
1.0
-0.4 1.2 0.6 0.2 1.1 -0.3 0.3 -0.4 0.1 1.2 -0.3 0.1 -0.2 -0.6
1.1 1.3 -1.4 -1.6 0.2 -0.2 -0.1 -0.1 0.4 -0.7 0.3 0.5 0.0 0.3 0.4 -0.4 -0.2 -0.1 0.0 -0.1 0.5 0.6 0.2 -1.0 -0.3
0.0 0.5 0.2 0.2 0.6 0.2 0.0 -0.4 -0.5 -0.4 0.2 -0.4 0.7 1.4 0.2 0.2 0.1 0.1 0.1 0.7 0.5 0.8 -0.4 0.0 -0.3 0.0 0.4 0.2 1.6 0.0 0.2 -0.6
1.1 1.9 0.3 0.5 0.9 0.2 0.3 -0.2 -0.2 0.5 0.3 0.2 -0.2 -0.2 0.3 0.4 1.3 0.8 -0.3 -0.2 0.3 0.3 -0.1 0.3 0.6
0.5 0.2 0.2 0.7 0.9 -0.8 0.4 0.2 0.0 -0.2 0.8 -0.1 0.3 0.3 0.9 0.9 0.2 0.3 0.7 0.7 -0.1 0.6 2.9 -0.5 -0.1 0.7 0.5
-0.9 1.1 1.1 0.0 0.4 -0.1 -0.9 -0.4 0.5 0.6 1.6 1.0 1.2 0.6 0.9 0.6 0.6 -0.1 -0.6 0.6
1.7 5.1 1.5 0.6 0.7 0.8 1.6 2.6 0.6
2.2 1.1 0.8 2.2 1.1
-1.2 -0.4 1.3 1.5 1.0 1.0 0.2 -0.3 -1.8
0.3 0.6 1.0 0.4 0.5 -0.8 -0.1 -0.6 0.3
-4.4 1.6 0.3 -0.4 0.6 0.7 -0.1 0.9 0.0 0.4 0.4 -0.1
0.5 0.4
1.6
0.6
-8.2 1.3
-6.9 0.9 3.1

Figure 7a. AIRCRAFT 300 - 150 hPa RMS O-B vector (ms-1). FEBRUARY 2006
Observations with O-B vector difference greater than 60 ms-1 excluded
Values are printed where greater than 30 obs are present



	2.7		3.4			3.4	3.9		5.5	3.3	3.9	4.1	3.5	5.4																			2.9		
	3.5		4.8	4.0	4.4	3.7	3.7	3.6	3.7	3.9	3.7	4.5	3.6	4.2	4.7	5.8	5.1	4.2		3.9	3.7	3.7	3.3	3.2	3.0	3.3	3.0	3.6		3.2	3.3	2.8	2.9	3.3	3.3
4.5	4.7	5.3	5.1	4.8	5.1	4.8	4.2	3.8	3.5	3.8	4.4	4.5	4.8	4.5	4.5	4.1	4.2	4.3	3.9	3.7	3.4	3.2	3.4	3.3	3.2	2.8	3.0	3.1	3.0	2.6	2.7	2.9	4.0	4.1	4.3
4.5	5.0	5.3	4.9	5.0	5.5	5.0	4.4	4.0	3.9	3.9	3.9	4.3	5.2	5.3	4.9	5.1	4.4	3.8	3.6	3.3	3.1	3.6	4.2	4.4	3.6	3.5	3.4	3.5	2.9	2.9	3.8	3.7	3.8	4.2	4.0
5.6	6.5	6.4	7.6	7.0	5.5	5.6	5.2	4.8	4.8	5.0	4.9	5.6	6.4	7.0	8.5	8.8	4.6	4.1	4.2	4.0	4.2	5.0	4.7	4.6	5.0	5.1	4.7	4.3	4.6	5.0	4.8	5.7	5.0	6.1	6.0
5.5	6.9	8.6	7.4	6.6	5.0	5.1	5.6	5.4	5.9	6.0	5.9	7.3	7.7	9.4	7.7	7.0	5.3	5.3	4.8	4.7	4.7	5.1	5.1	5.2	5.6	5.9	5.6	6.5	5.8	5.5	5.3	6.0	7.0	7.0	7.9
5.8	8.9	6.4	7.6	6.4	6.5	5.8	5.9	5.6	5.7	5.6	5.6	5.7	6.5	6.3	6.7	5.3	6.6	5.5	5.3	5.1	5.8	5.4	5.2	5.6	5.3	5.5	4.7	5.7	5.5	4.9	5.1	5.9	7.4	7.8	6.6
5.7	6.3	5.6	6.7	7.6				6.5	6.0	7.4	5.6	7.2	9.7	6.8	5.5	5.9	12.1	5.3	5.4	5.6	6.2	5.3		7.3	6.2	5.4	5.4	5.5	5.1	4.9	5.2	4.7	6.3	5.3	8.1
5.5	5.4	5.6	8.5	11.2	15.6				14.6	9.1	6.2	6.3	5.9	5.8	6.0	7.3	8.5	6.7	6.0	6.7	6.4			7.5	6.8	5.9	6.4	5.1	5.3	6.0		7.4			
5.3	4.9	6.4	9.3						9.9	7.1	5.6	5.6	6.2	5.5	5.5		7.9	5.4	6.1	6.3	7.1	6.6	10.1	7.0	6.2	6.3	7.2	5.4	4.9	5.1	5.3				5.5
5.6	5.3	5.8	6.4							4.7	4.8	5.1	5.0	4.4				4.0	4.5	4.8	5.2	5.4	6.1	5.7	5.7			4.5	4.4	4.1	4.4	5.8	7.0	5.1	5.8
4.8	5.3	6.2								5.8	5.9	5.7	5.4	5.1	4.9	4.7	4.5	4.1	4.3	4.8	5.1	6.2	5.1	7.1	6.6	4.8	5.3	6.5	4.3	4.5	5.2	5.4	5.3	5.4	6.0
5.5	4.4										5.9	6.3							4.4	5.2	4.7	5.7	5.5	5.4					7.0	5.0	5.1	4.9	5.5	4.9	4.6
4.6	4.5	5.2																				4.7	5.8		5.7	6.0	6.3	7.0	5.3	4.9	4.7		6.5	5.4	5.1
		4.4	4.3	3.5	5.5																					6.5	5.0	7.4	4.5						
																																		12.0	

Figure 7b. AIRCRAFT 1000 - 301 hPa RMS O-B vector (ms-1). FEBRUARY 2006
Observations with O-B vector difference greater than 60 ms-1 excluded
Values are printed where greater than 30 obs are present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120°W
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60°W
30°W
0°
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60°E
90°E
120°E
150°E
60°N
30°N
0°
30°S
60°S
4.4
3.2 4.6 5.2 4.9 5.1 6.5 6.6 6.4 7.0 7.2 4.1 3.7 3.3 3.6
4.1 3.5 8.0 6.4 5.6 5.4 4.5 3.8 4.6 5.7 4.4 7.0 8.0 6.0 5.2 3.5 3.4 3.2 3.1 3.1 3.0 3.5 3.9 4.6 4.5
4.5 6.0 5.0 4.9 4.9 3.9 4.5 4.9 5.9 5.7 7.0 7.5 6.9 7.9 3.8 3.8 3.7 3.9 3.5 4.5 4.8 5.3 10.5 8.2 5.0 4.5 4.2 3.7 5.0 4.7 5.1 4.8
6.0 6.3 3.8 4.0 5.1 4.2 4.4 4.2 4.0 8.4 4.0 4.1 4.1 4.2 4.2 4.9 4.7 5.6 4.9 3.9 5.2 4.5 4.3 4.7 5.0
9.9 4.6 6.8 5.8 5.6 5.1 4.1 4.5 3.8 3.6 4.6 4.6 4.7 5.2 4.3 4.4 4.2 4.3 4.8 4.8 4.9 6.4 12.8 4.8 4.1 4.3 4.8
5.4 4.4 4.5 4.5 3.8 3.3 4.0 4.3 4.6 5.1 6.0 4.6 4.3 4.6 4.5 5.1 3.7 4.6 4.9 3.3
9.6 7.0 7.1 4.5 3.4 4.0 5.3 5.9 3.5
4.3 4.7 4.6 4.4 4.3
5.0 3.3 3.9 5.3 4.3 4.4 4.9 3.3 4.8
5.0 4.3 5.6 4.0 4.3 4.0 3.5 4.3 5.2
18.0 6.0 4.9 4.7 4.4 4.3 3.7 5.0 3.8 3.8 4.7 3.7
4.1 4.8
13.2
16.8
23.2 13.5
16.7 7.4 6.3

TABLE 5

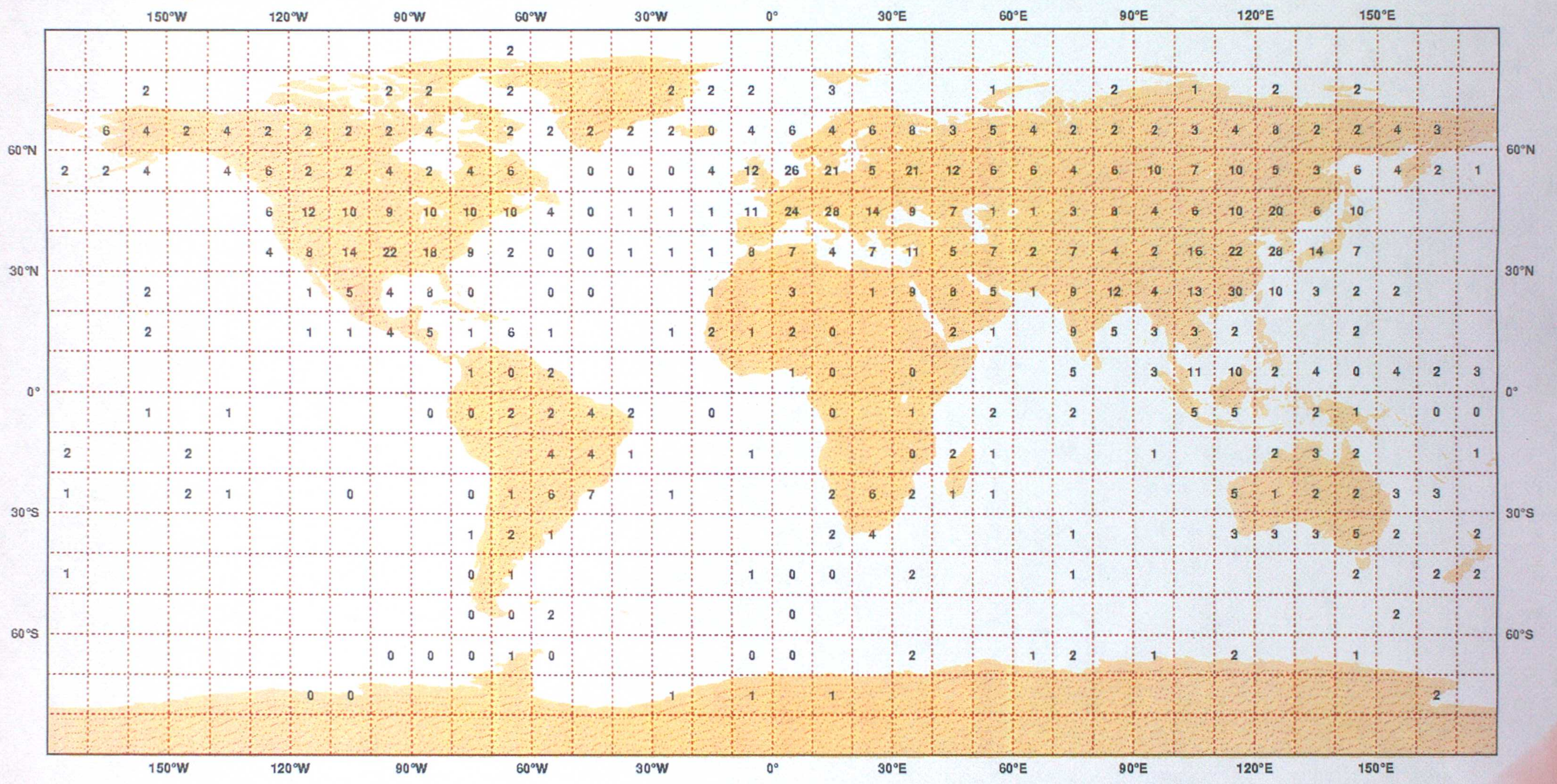
MONTHLY MONITORING OF RADIOSONDE OBSERVATIONS
MONITORING CENTRE: EXETER
MONTH: Feb 06

Monitoring procedures		
Period		:One calendar month.
Data monitored		:Reports from each unique identifier for radiosonde TEMPs.
Area monitored		:90°N - 90°S, 180°W - 180°E.
Standard of comparison		:Background field from UKMO global model.
Observation times		:00 UTC and 12 UTC.
Level(s) monitored		:Standard levels between 1000.0 - 30.0 hPa
Element monitored		:GEOPOTENTIAL HEIGHT IN metres
Parameters monitored	:NUM OBS	:Number of observations available at level shown during period.
	:NUM GROSS	:Number of gross errors at level shown during period.
	:% REJ	:Percentage of observations rejected by quality control at level shown during period excluding those with gross errors.
	:SD	:SD of difference of observations from background values at level shown excluding those with gross errors.
	:BIAS	:Mean difference of observations from background values at level shown excluding those with gross errors.
	:RMS	:Root Mean Square difference of observations from background values at level shown excluding those with gross errors.
	:NUM LEVELS	:Number of levels satisfying selection criteria.
GROSS ERROR LIMITS	:Defined in Appendix I.1	
SELECTION CRITERIA	: ≥3 levels with ≥10 observations and ≥ 100 m weighted RMS.	

ONLY THE WORST LEVEL IS SHOWN WITH UNWEIGHTED RMS

WMO IDENT	OBS TIME	ELM	LEV	LAT/LONG	NUM OBS	NUM GROSS	SD	BIAS	RMS	NUM LEVELS
28698	12	Z	50	55/ 73	9	1	105.5	228.1	251.3	6
31168	00	Z	1000	56/ 138	19	0	24.5	-36.4	43.8	5
34731	12	Z	250	47/ 40	19	0	32.4	103.3	108.3	7
42101	00	Z	250	30/ 76	17	0	48.9	-58.5	76.2	4
42182	00	Z	1000	29/ 77	8	18	10.0	-81.1	81.7	7
42182	12	Z	1000	29/ 77	8	20	7.7	-88.9	89.2	9
42314	00	Z	200	27/ 95	11	0	49.2	-129.9	138.9	4
42339	00	Z	1000	26/ 73	5	11	12.2	-68.6	69.7	4
42339	12	Z	1000	26/ 73	4	14	6.5	-76.8	77.0	7
42361	00	Z	1000	26/ 78	3	12	9.0	-87.3	87.8	5
42369	00	Z	100	27/ 81	14	2	68.6	-166.1	179.7	10
42369	12	Z	1000	27/ 81	26	1	28.3	-49.5	57.1	8
42379	12	Z	150	27/ 83	9	2	148.4	73.7	165.7	8
42410	00	Z	250	26/ 92	18	1	43.3	-129.8	136.9	8
42410	12	Z	200	26/ 92	15	2	42.6	-159.3	164.9	7
42647	00	Z	200	23/ 73	16	0	104.2	-92.1	139.0	6
42701	00	Z	100	23/ 85	18	0	104.3	-119.9	159.0	6
42701	12	Z	100	23/ 85	17	0	100.9	-85.5	132.3	6
42809	00	Z	200	23/ 88	19	0	67.6	-59.6	90.1	5
42809	12	Z	200	23/ 88	19	1	82.7	-59.6	101.9	6
42867	00	Z	200	21/ 79	14	2	39.6	-132.9	138.6	9
42867	12	Z	200	21/ 79	15	0	66.1	-84.6	107.3	5
42971	00	Z	100	20/ 86	16	1	92.3	-126.1	156.3	6
43003	00	Z	100	19/ 73	15	5	128.1	-192.8	231.5	10
43003	12	Z	300	19/ 73	18	0	78.2	-28.1	83.1	7
43128	00	Z	100	17/ 78	10	2	36.8	-204.8	208.1	6
43150	00	Z	200	18/ 83	26	1	70.7	-125.8	144.4	10
43150	12	Z	500	18/ 83	23	0	32.6	-36.9	49.2	4
43192	00	Z	100	15/ 74	12	2	88.3	-212.4	230.0	8
43285	12	Z	150	13/ 75	11	1	131.2	51.3	140.9	5
43333	12	Z	100	12/ 93	20	2	88.3	-159.3	182.1	6
43346	00	Z	100	11/ 80	16	1	88.9	-163.4	186.0	8
43346	12	Z	30	11/ 80	10	0	74.1	197.1	210.6	4
43353	00	Z	1000	10/ 76	20	2	11.1	-77.8	78.6	5
43353	12	Z	1000	10/ 76	15	11	8.9	-88.5	88.9	6
43371	00	Z	150	8/ 77	23	0	80.1	-154.7	174.2	6
43371	12	Z	100	8/ 77	10	0	153.6	2.3	153.6	5
72376	12	Z	400	37/-108	27	0	43.7	41.9	60.5	4
83746	00	Z	1000	-23/ -43	14	6	12.5	-70.6	71.7	4
89592	00	Z	30	-67/ 93	20	0	111.2	210.1	237.8	6
96163	00	Z	1000	-1/ 100	3	14	52.7	-5.0	52.9	12
96935	00	Z	1000	-7/ 113	20	0	22.1	-32.6	39.4	7
97014	00	Z	200	2/ 125	21	0	62.1	-63.7	89.0	4
97180	00	Z	1000	-5/ 120	23	1	14.1	-54.2	56.0	10
97180	12	Z	1000	-5/ 120	25	1	11.1	-64.6	65.6	8
97372	12	Z	100	-10/ 124	11	0	133.8	36.5	138.7	5
97560	00	Z	200	-1/ 136	19	3	57.0	-121.9	134.6	10
97560	12	Z	200	-1/ 136	20	2	113.4	-84.7	141.5	12

Figure 8. TEMP 500 hPa geopotential mean daily count. FEBRUARY 2006
All hours
Global average number of observations in 24 hours = 1211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90°W
60°W
30°W
0°
30°E
60°E
90°E
120°E
150°E
60°N
30°N
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30°S
60°S
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2 2 2 2 2 2 2 3 1 2 1 2 2
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2 2 4 4 6 2 2 4 2 4 6 0 0 0 4 12 26 21 5 21 12 6 6 4 6 10 7 10 5 3 6 4 2 1
6 12 10 9 10 10 10 4 0 1 1 1 11 24 28 14 9 7 1 1 3 8 4 6 10 20 6 10
4 8 14 22 18 9 2 0 0 1 1 1 8 7 4 7 11 5 7 2 7 4 2 16 22 28 14 7
2 1 5 4 8 0 0 0 1 3 1 9 8 5 1 9 12 4 13 30 10 3 2 2
2 1 1 4 5 1 6 1 1 2 1 2 0 2 1 9 5 3 3 2 2
1 0 2 1 0 0 5 3 11 10 2 4 0 4 2 3
1 1 0 0 2 2 4 2 0 0 1 2 2 5 5 2 1 0 0
2 2 4 4 1 1 0 2 1 1 2 3 2 1
1 2 1 0 0 1 6 7 1 2 6 2 1 1 5 1 2 2 3 3
1 2 1 2 4 1 3 3 3 5 2 2
1 0 1 1 0 0 2 1 2 2 2
0 0 2 0 2
0 0 0 1 0 0 0 2 1 2 1 2 1
0 0 1 1 1 2

TABLE 6

MONTHLY MONITORING OF RADIOSONDE OBSERVATIONS
MONITORING CENTRE: EXETER
MONTH: Feb 06

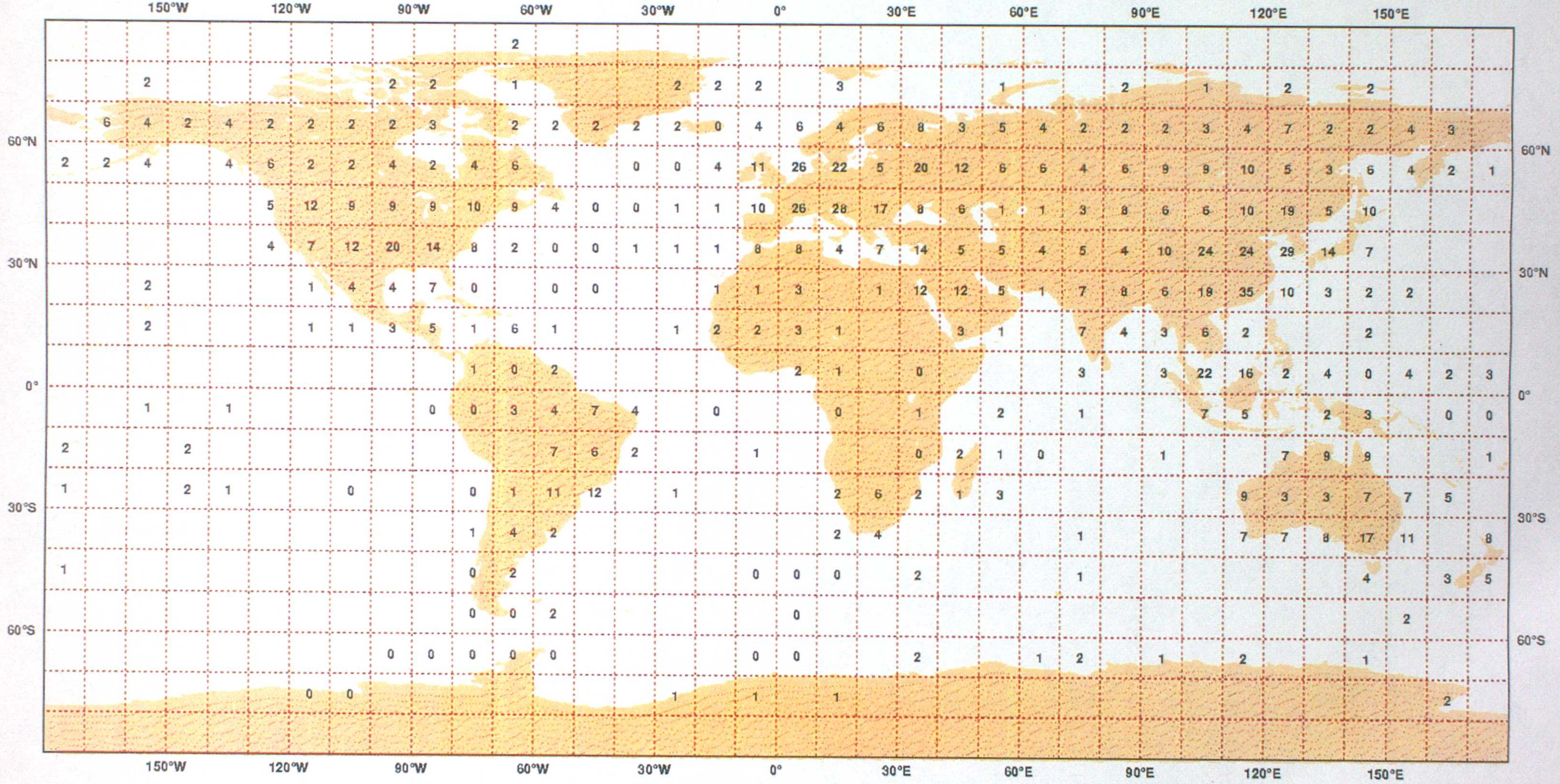
Monitoring procedures

Period		:One calendar month.
Data monitored		:Reports from each unique identifier for radiosonde TEMPs.
Area monitored		:90°N - 90°S, 180°W - 180°E.
Standard of comparison		:Background field from UKMO global model.
Observation times		:00 UTC and 12 UTC.
Level(s) monitored		:Standard levels between 1000.0 - 100.0 hPa
Element monitored		:VECTOR WIND in m s^{-1}
Parameters monitored	:NUM OBS	:Number of observations available at level shown during period.
	:NUM GROSS	:Number of gross errors at level shown during period.
	:% REJ	:Percentage of observations rejected by quality control at level shown during period excluding those with gross errors.
	:UBIAS,VBIAS	:Mean difference of observations of U and V components from background values at level shown excluding those with gross errors.
	:RMS	:Root Mean Square difference of observations from background values at level shown excluding those with gross errors.
	:NUM LEVELS	:Number of levels satisfying selection criteria.
GROSS ERROR LIMITS	:Defined in Appendix I.2	
SELECTION CRITERIA	: ≥ 10 observations and ≥ 15 m s^{-1} RMS vector wind.	

ONLY THE STANDARD LEVEL BETWEEN 1000 - 100 hPa WITH HIGHEST RMS IS SHOWN

WMO IDENT	OBS TIME	ELM	LEV	LAT/LONG	NUM OBS	NUM GROSS	% REJ	UBIAS	VBIAS	RMS	LEVELS
40265	00	V	100	32/ 36	19	0	15	-0.8	-4.1	16.3	1
41756	12	V	500	25/ 62	10	0	100	5.1	4.2	19.1	1
41768	12	V	500	26/ 70	15	0	100	-13.3	-2.6	19.2	1
42182	00	V	200	29/ 77	25	1	100	-4.2	-8.1	21.0	3
42182	12	V	250	29/ 77	26	0	100	-0.6	-10.9	16.5	2
42369	00	V	200	27/ 81	18	0	100	1.9	-4.9	15.4	1
42701	00	V	300	23/ 85	23	0	100	-3.6	-0.1	17.1	3
42701	12	V	200	23/ 85	17	0	100	-9.2	-2.4	17.6	4
43369	00	V	300	8/ 73	13	0	100	-9.0	-6.0	16.3	1
48407	12	V	150	15/ 105	25	0	100	-12.3	-3.9	16.8	2
54337	12	V	250	41/ 121	11	0	18	-3.9	7.2	22.6	2
54497	12	V	400	40/ 124	23	0	100	1.6	1.4	21.4	2
60566	12	V	250	32/ 4	10	0	100	-14.1	-2.0	23.9	3
60571	00	V	100	31/ -2	22	0	4	-3.6	0.7	25.9	1
60590	12	V	400	31/ 3	11	0	100	-23.0	-1.2	25.9	2
60620	12	V	300	28/ 0	10	0	100	-19.1	-2.8	25.3	3
60656	12	V	400	28/ -8	13	0	46	-6.1	-7.4	18.2	1
61641	12	V	400	15/ -17	16	0	6	-0.8	3.2	15.3	1
62306	12	V	200	31/ 27	17	0	100	4.9	-6.4	15.7	1
62337	12	V	150	31/ 34	26	0	100	-8.6	6.1	20.1	4
62378	00	V	150	30/ 31	18	0	100	-13.6	3.4	31.7	2
62423	00	V	150	27/ 28	19	0	100	-2.1	4.1	15.7	1
72249	00	V	150	33/ -97	20	0	10	-3.6	-0.1	17.6	1
72305	00	V	150	35/ -77	11	0	27	-1.5	3.1	16.7	1
72376	00	V	250	37/-108	25	0	100	-9.4	4.9	18.8	3
72376	12	V	250	37/-108	24	0	100	-10.2	6.7	19.1	2
76405	12	V	300	24/-110	22	0	4	2.6	1.8	16.6	1
89009	00	V	300	-90/ 0	24	0	100	1.9	-17.5	21.7	4
89009	12	V	300	-90/ 0	26	0	100	1.3	-15.7	21.5	3
96035	00	V	150	4/ 99	24	0	100	3.2	1.8	15.3	1

Figure 9. TEMP/PILOT 300 hPa wind mean daily count. FEBRUARY 2006
All hours
Global average number of observations in 24 hours = 1362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60°N 30°N 0° 30°S 60°S
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5 12 9 9 9 10 9 4 0 0 1 1 10 26 28 17 8 6 1 1 3 8 6 6 10 19 5 10
4 7 12 20 14 8 2 0 0 1 1 1 8 8 4 7 14 5 5 4 5 4 10 24 24 29 14 7
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2 1 1 3 5 1 6 1 1 2 2 3 1 3 1 7 4 3 6 2 2
1 0 2 2 1 0 3 3 22 16 2 4 0 4 2 3
1 1 0 0 3 4 7 4 0 0 1 2 1 7 5 2 3 0 0
2 2 7 6 2 1 0 2 1 0 1 7 9 9 1
1 2 1 0 0 1 11 12 1 2 6 2 1 3 9 3 3 7 7 5
1 4 2 2 4 1 7 7 8 17 11 8
1 0 2 0 0 0 2 1 4 3 5
0 0 2 0 2
0 0 0 0 0 0 0 2 1 2 1 2 1
0 0 1 1 1 2

TABLE 7

MONTHLY MONITORING OF RADIOSONDE OBSERVATIONS
MONITORING CENTRE: EXETER
MONTH: Feb 06

Monitoring procedures

Period :One calendar month.

Data monitored :Reports from each unique identifier for radiosonde TEMPs.

Area monitored :90°N - 90°S, 180°W - 180°E.

Standard of comparison :Background field from UKMO global model.

Observation times :00 UTC and 12 UTC.

Level(s) monitored :Standard levels between 500.0 - 150.0 hPa

Element monitored :WIND DIRECTION in degrees

Parameters monitored

:NUM OBS :Average number of observations at all levels.

:BIAS :Mean difference of observations from background values from all levels.

:MAX SPREAD :(For observation - background values) Maximum absolute difference of SD at any level from SD at all levels

:SD :SD of difference of observations from background values at all levels.

SELECTION CRITERIA :NUM OBS ≥ 5, and
ABSOLUTE BIAS $\geq 10°$, with
SD $< 30°$, and
MAX SPREAD $< 10°$

WMO IDENT	OBS TIME	ELM	LAT/LONG	NUM OBS	BIAS	MAX SPREAD	SD
08594	12	DD	17/ -23	22	11.1	7.2	9.8
33791	12	DD	48/ 33	23	-13.5	1.7	7.1
34731	00	DD	47/ 40	21	10.9	1.9	11.4
34731	12	DD	47/ 40	20	11.3	9.3	17.8
42182	12	DD	29/ 77	26	17.7	5.5	11.8
53614	00	DD	38/ 106	27	10.6	3.0	8.9
53614	12	DD	38/ 106	27	11.5	4.8	11.2
58968	00	DD	25/ 122	28	16.7	2.6	5.7
58968	12	DD	25/ 122	28	18.6	3.2	6.5
60566	12	DD	32/ 4	10	10.6	6.0	21.8
82917	12	DD	-10/ -68	5	-15.6	7.0	25.0
91366	00	DD	9/ 168	19	11.5	8.3	28.3

MONITORING OF SATELLITE WINDS

MONITORING CENTRE: EXETER

MONTH: Feb 06

Monitoring procedures

Period :One calendar month.

Data monitored :Reports from GOES-9, GOES-10, GOES-12, METEOSAT-5, METEOSAT-7

Standard of comparison :Background field from UKMO global model.

Selection Criteria :number of observations > 10.

Data Extracted :Layer 701 - 1000 hPa
401 - 700 hPa
101 - 400 hPa

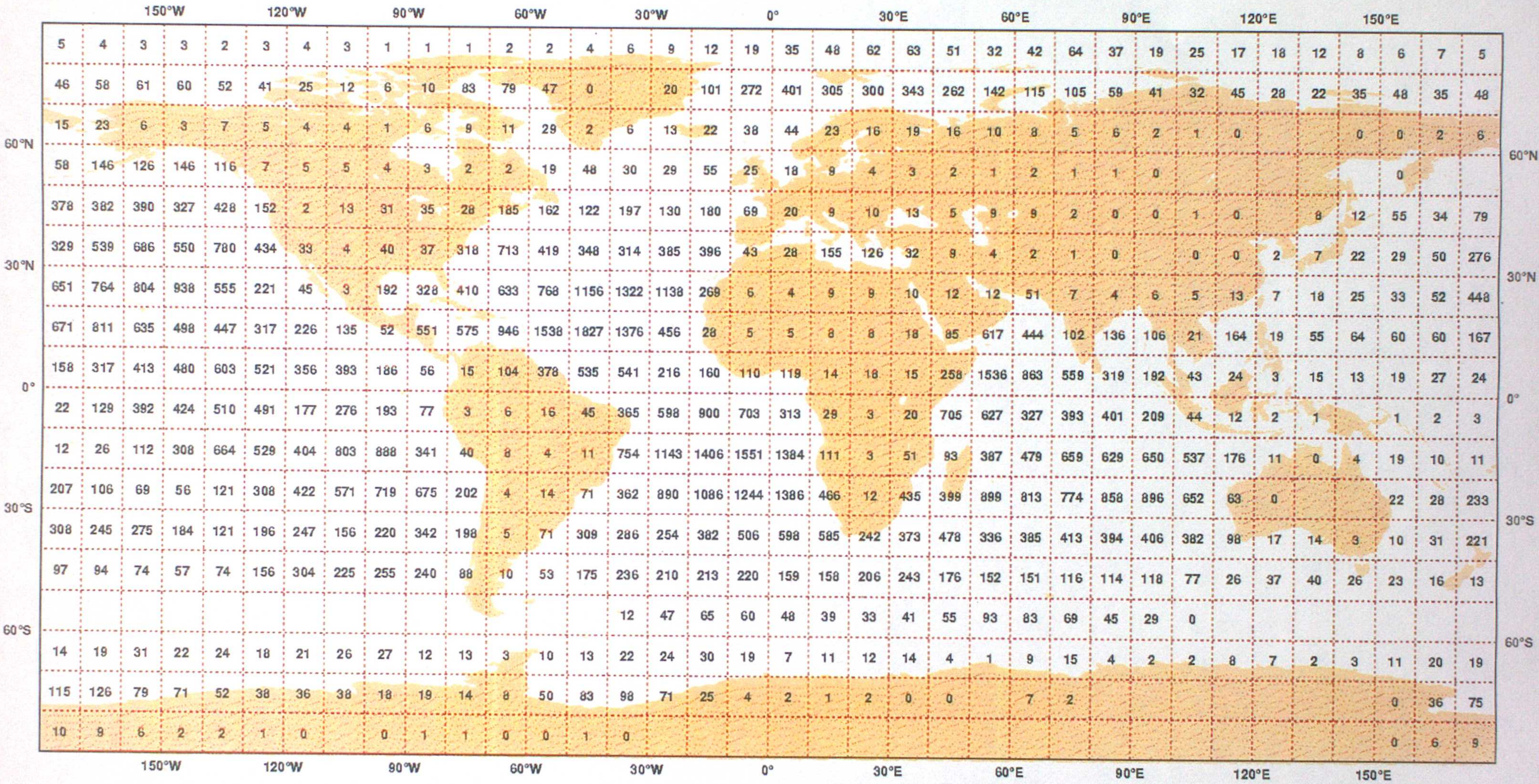
:Mean wind

:Mean observation minus background vector wind differences

:Mean observation minus background speed differences

:RMS of observation minus background vector differences

Figure 10. SATOB 701 - 1000 hPa mean daily count. FEBRUARY 2006
Global average number of observations in 24 hours = 103514



5	4	3	3	2	3	4	3	1	1	1	2	2	4	6	9	12	19	35	48	62	63	51	32	42	64	37	19	25	17	18	12	8	6	7	5
46	58	61	60	52	41	25	12	6	10	83	79	47	0		20	101	272	401	305	300	343	262	142	115	105	59	41	32	45	28	22	35	48	35	48
15	23	6	3	7	5	4	4	1	6	9	11	29	2	6	13	22	38	44	23	16	19	16	10	8	5	6	2	1	0			0	0	2	6
58	146	126	146	116	7	5	5	4	3	2	2	19	48	30	29	55	25	18	9	4	3	2	1	2	1	1	0						0		
378	382	390	327	428	152	2	13	31	35	28	185	162	122	197	130	180	69	20	9	10	13	5	9	9	2	0	0	1	0		8	12	55	34	79
329	539	686	550	780	434	33	4	40	37	318	713	419	348	314	385	396	43	28	155	126	32	9	4	2	1	0		0	0	2	7	22	29	50	276
651	764	804	938	555	221	45	3	192	328	410	633	768	1156	1322	1138	269	6	4	9	9	10	12	12	51	7	4	6	5	13	7	18	25	33	52	448
671	811	635	498	447	317	226	135	52	551	575	946	1538	1827	1376	456	28	5	5	8	8	18	85	617	444	102	136	106	21	164	19	55	64	60	60	167
158	317	413	480	603	521	356	393	186	56	15	104	378	535	541	216	160	110	119	14	18	15	258	1536	863	559	319	192	43	24	3	15	13	19	27	24
22	129	392	424	510	491	177	276	193	77	3	6	16	45	365	598	900	703	313	29	3	20	705	627	327	393	401	209	44	12	2	1		1	2	3
12	26	112	308	664	529	404	803	888	341	40	8	4	11	754	1143	1406	1551	1384	111	3	51	93	387	479	659	629	650	537	176	11	0	4	19	10	11
207	106	69	56	121	308	422	571	719	675	202	4	14	71	362	890	1086	1244	1386	466	12	435	399	899	813	774	858	896	652	63	0			22	28	233
308	245	275	184	121	196	247	156	220	342	198	5	71	309	286	254	382	506	598	585	242	373	478	336	385	413	394	406	382	98	17	14	3	10	31	221
97	94	74	57	74	156	304	225	255	240	88	10	53	175	236	210	213	220	159	158	206	243	176	152	151	116	114	118	77	26	37	40	26	23	16	13
														12	47	65	60	48	39	33	41	55	93	83	69	45	29	0							
14	19	31	22	24	18	21	26	27	12	13	3	10	13	22	24	30	19	7	11	12	14	4	1	9	15	4	2	2	8	7	2	3	11	20	19
115	126	79	71	52	38	36	38	18	19	14	8	50	83	98	71	25	4	2	1	2	0	0		7	2								0	36	75
10	9	6	2	2	1	0		0	1	1	0	0	1	0																			0	6	9

Figure 11. SATOB 701 - 1000 hPa vector mean wind. FEBRUARY 2006
All observations
Arrows are plotted where greater than 10 obs are present

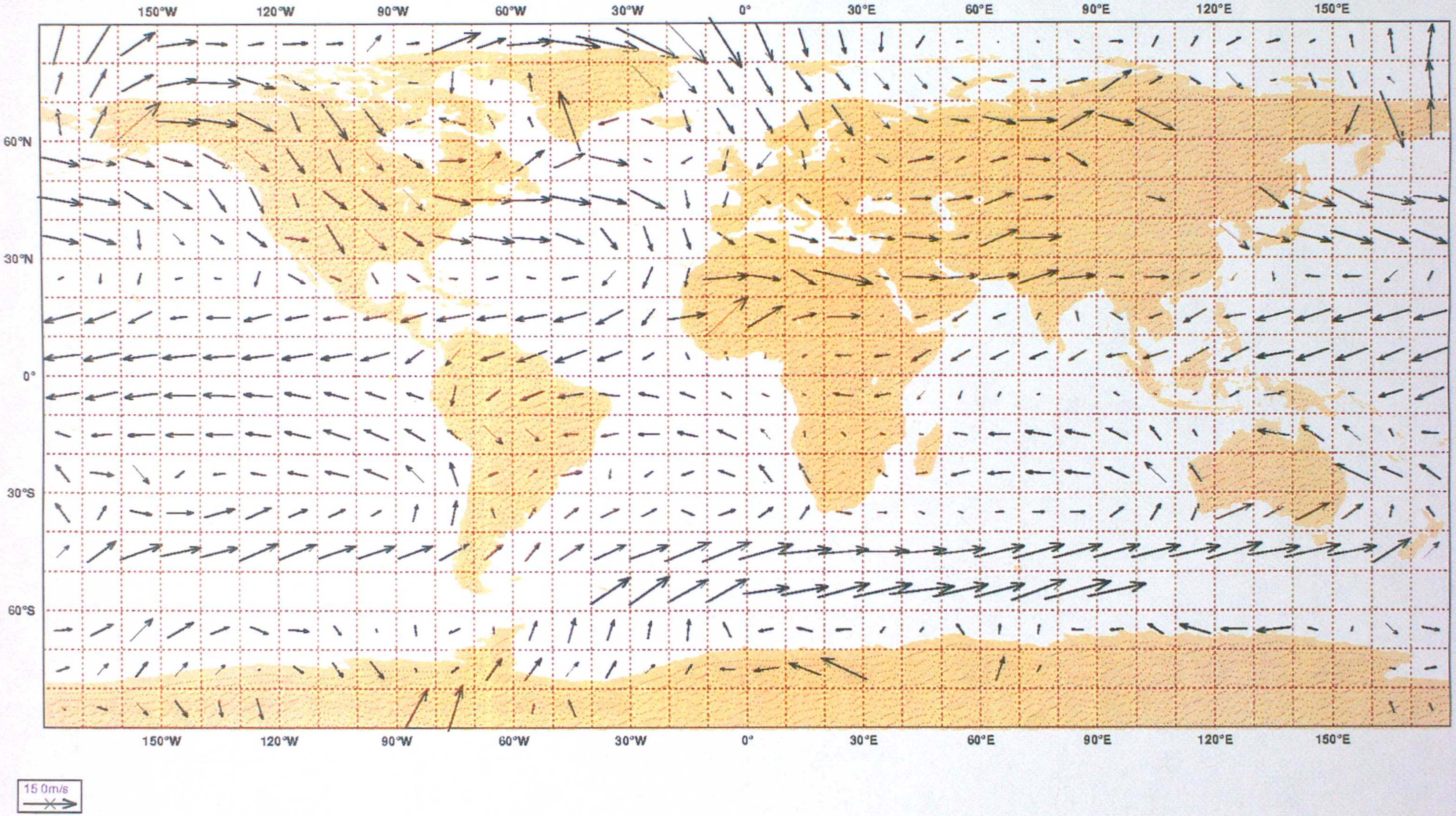

150°W
120°W
90°W
60°W
30°W
0°
30°E
60°E
90°E
120°E
150°E
60°N
30°N
0°
30°S
60°S
15.0m/s

Figure 12. SATOB 701 - 1000 hPa mean vector wind differences. FEBRUARY 2006
All observations
Arrows are plotted where greater than 10 obs are present

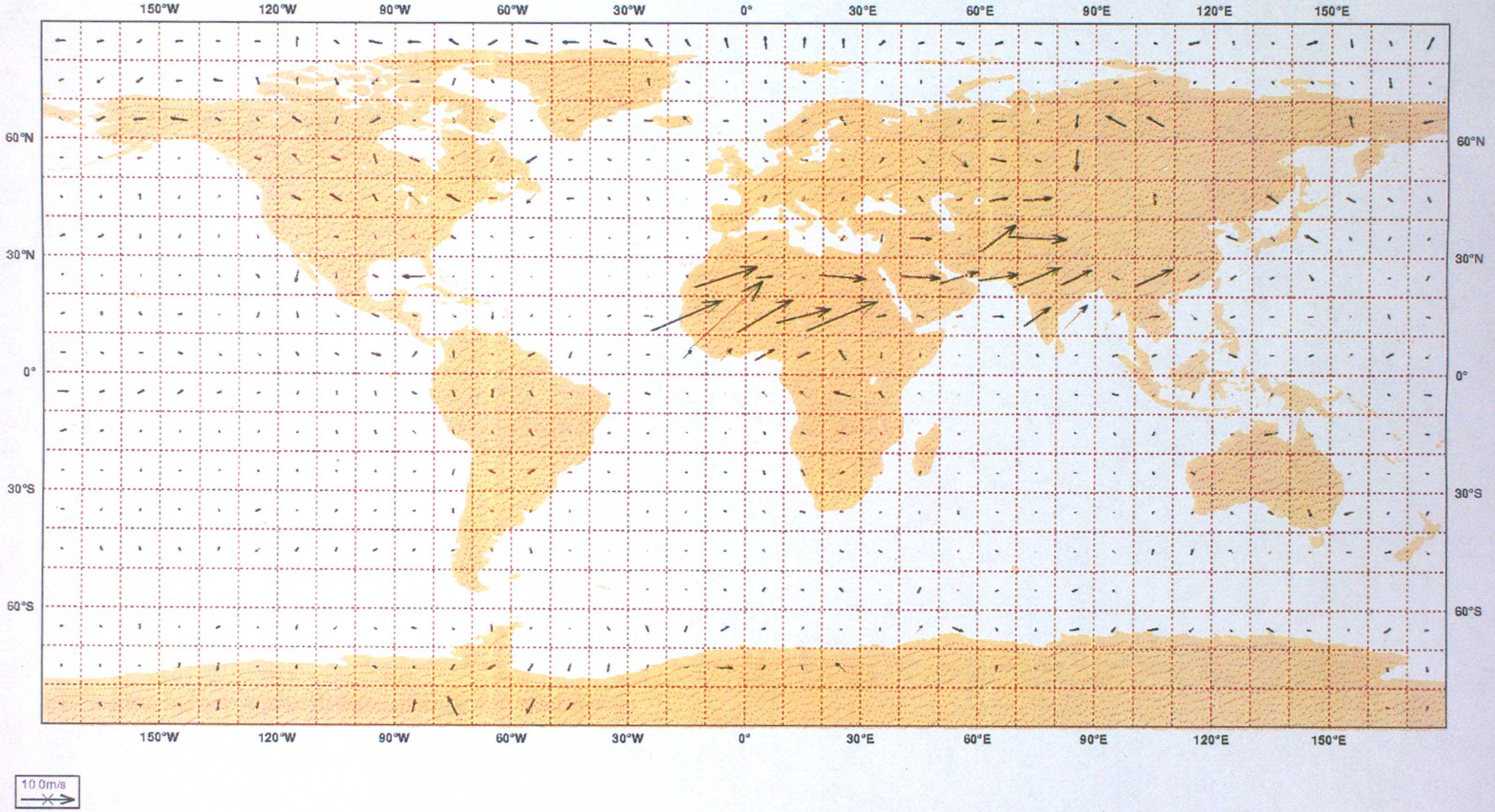
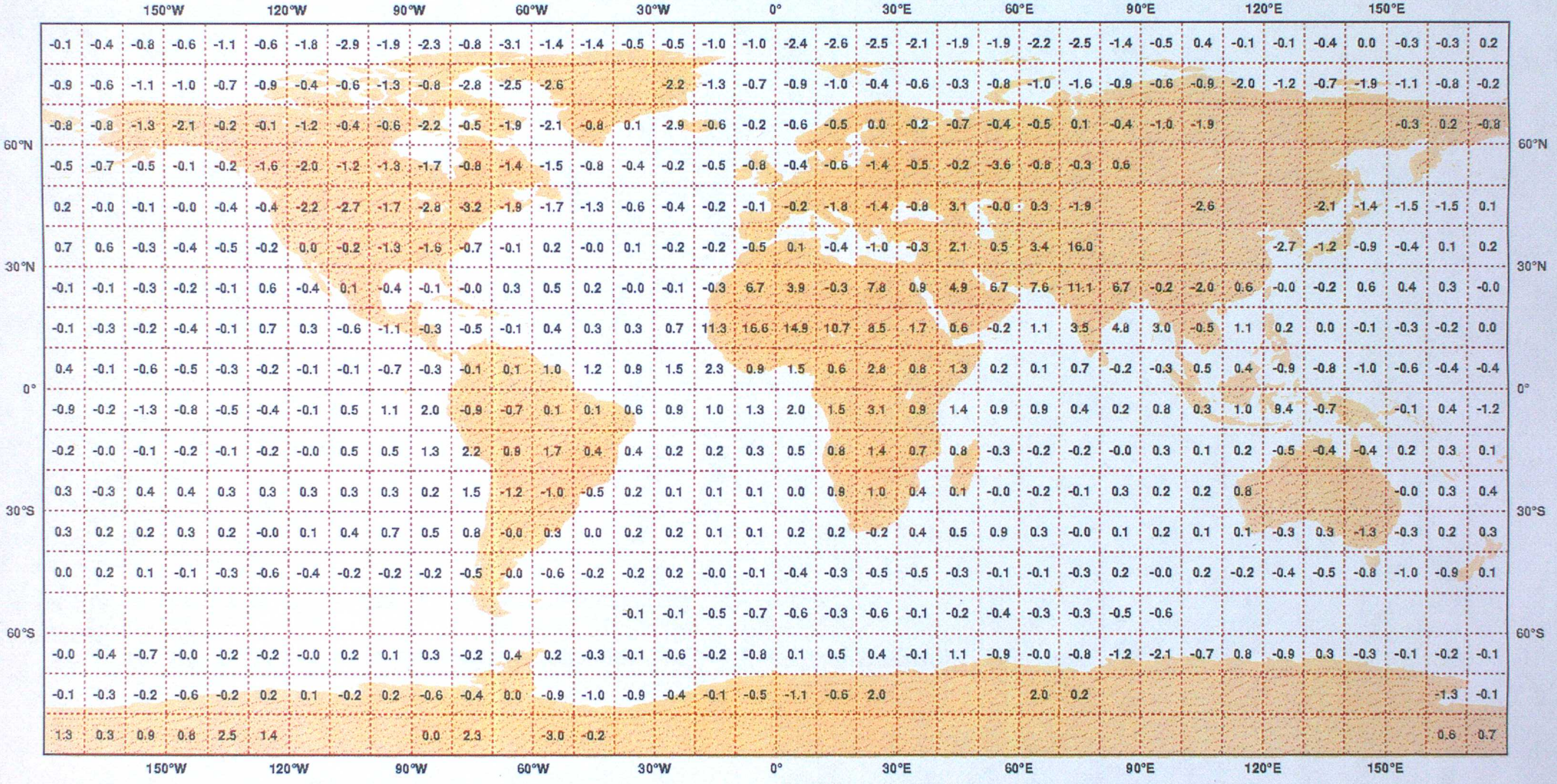

150°W
120°W
90°W
60°W
30°W
0°
30°E
60°E
90°E
120°E
150°E
60°N
30°N
0°
30°S
60°S
10.0m/s

Figure 13. SATOB 701 - 1000 hPa mean O-B speed differences (ms-1). FEBRUARY 2006

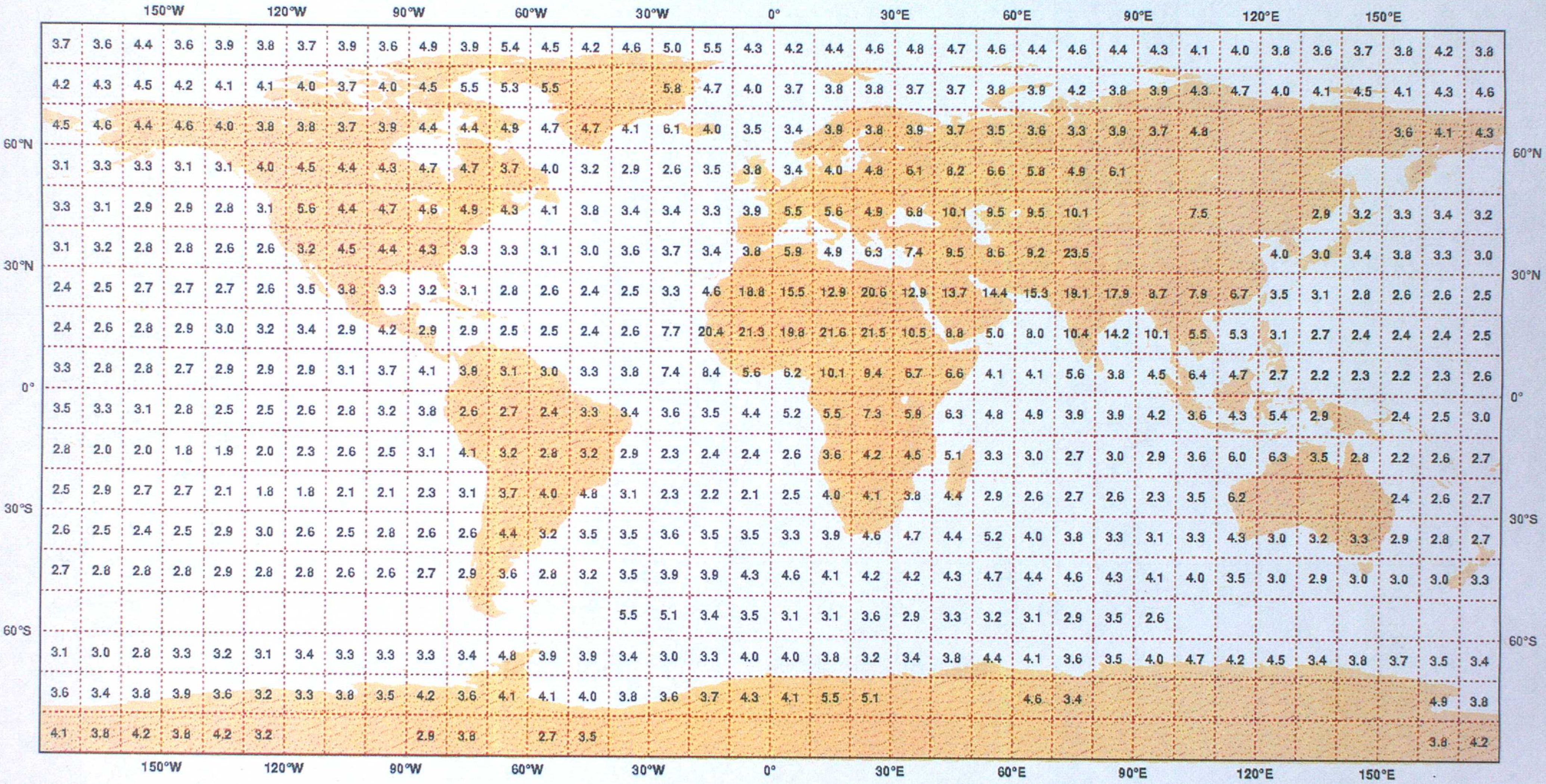
All observations

Values are plotted where greater than 10 obs are present



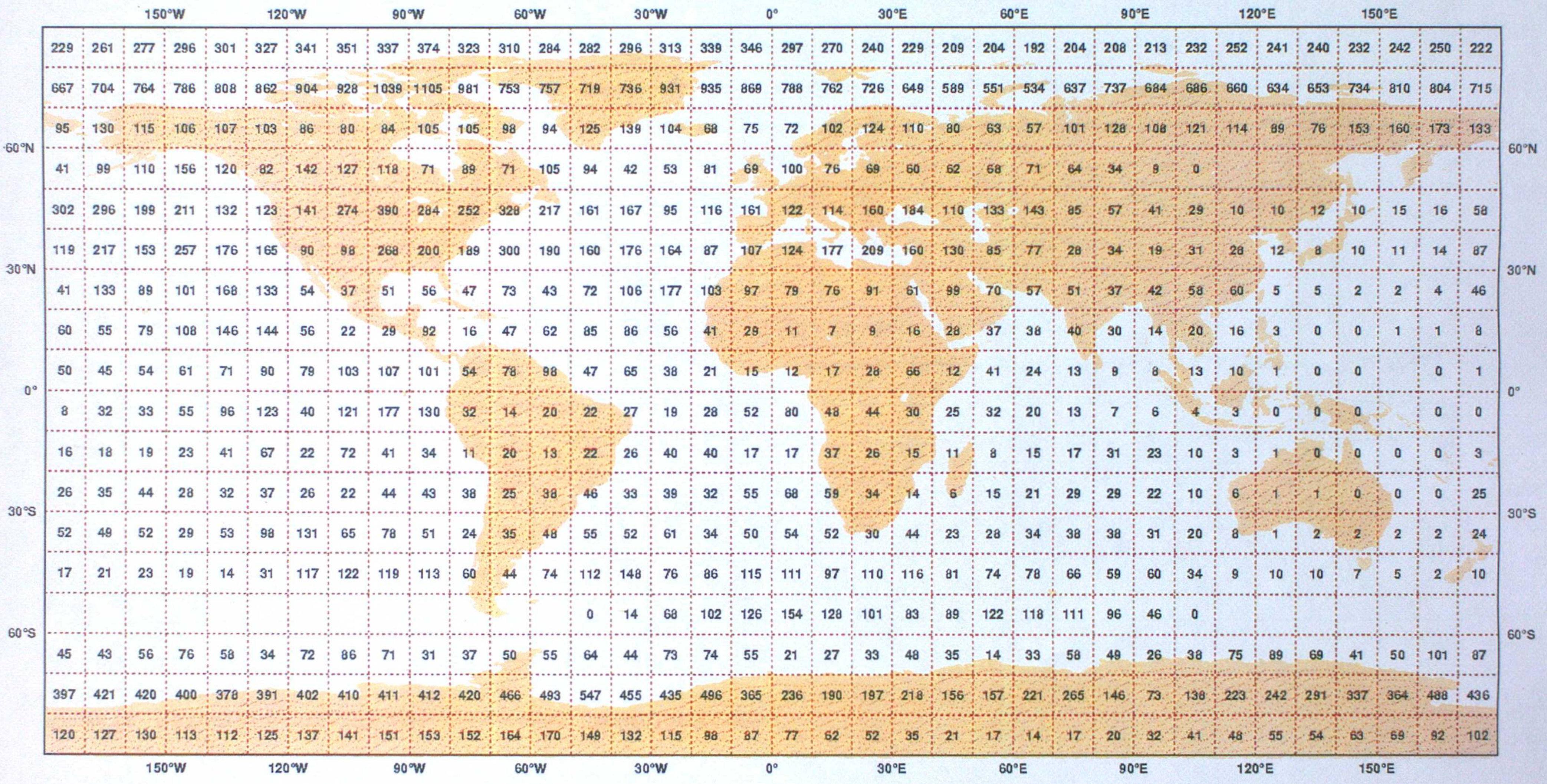
-0.1	-0.4	-0.8	-0.6	-1.1	-0.6	-1.8	-2.9	-1.9	-2.3	-0.8	-3.1	-1.4	-1.4	-0.5	-0.5	-1.0	-1.0	-2.4	-2.6	-2.5	-2.1	-1.9	-1.9	-2.2	-2.5	-1.4	-0.5	0.4	-0.1	-0.1	-0.4	0.0	-0.3	-0.3	0.2
-0.9	-0.6	-1.1	-1.0	-0.7	-0.9	-0.4	-0.6	-1.3	-0.8	-2.8	-2.5	-2.6			-2.2	-1.3	-0.7	-0.9	-1.0	-0.4	-0.6	-0.3	-0.8	-1.0	-1.6	-0.9	-0.6	-0.9	-2.0	-1.2	-0.7	-1.9	-1.1	-0.8	-0.2
-0.8	-0.8	-1.3	-2.1	-0.2	-0.1	-1.2	-0.4	-0.6	-2.2	-0.5	-1.9	-2.1	-0.8	0.1	-2.9	-0.6	-0.2	-0.6	-0.5	0.0	-0.2	-0.7	-0.4	-0.5	0.1	-0.4	-1.0	-1.9					-0.3	0.2	-0.8
-0.5	-0.7	-0.5	-0.1	-0.2	-1.6	-2.0	-1.2	-1.3	-1.7	-0.8	-1.4	-1.5	-0.8	-0.4	-0.2	-0.5	-0.8	-0.4	-0.6	-1.4	-0.5	-0.2	-3.6	-0.8	-0.3	0.6									
0.2	-0.0	-0.1	-0.0	-0.4	-0.4	-2.2	-2.7	-1.7	-2.8	-3.2	-1.9	-1.7	-1.3	-0.6	-0.4	-0.2	-0.1	-0.2	-1.8	-1.4	-0.8	3.1	-0.0	0.3	-1.9			-2.6			-2.1	-1.4	-1.5	-1.5	0.1
0.7	0.6	-0.3	-0.4	-0.5	-0.2	0.0	-0.2	-1.3	-1.6	-0.7	-0.1	0.2	-0.0	0.1	-0.2	-0.2	-0.5	0.1	-0.4	-1.0	-0.3	2.1	0.5	3.4	16.0					-2.7	-1.2	-0.9	-0.4	0.1	0.2
-0.1	-0.1	-0.3	-0.2	-0.1	0.6	-0.4	0.1	-0.4	-0.1	-0.0	0.3	0.5	0.2	-0.0	-0.1	-0.3	6.7	3.9	-0.3	7.8	0.9	4.9	6.7	7.6	11.1	6.7	-0.2	-2.0	0.6	-0.0	-0.2	0.6	0.4	0.3	-0.0
-0.1	-0.3	-0.2	-0.4	-0.1	0.7	0.3	-0.6	-1.1	-0.3	-0.5	-0.1	0.4	0.3	0.3	0.7	11.3	16.6	14.9	10.7	8.5	1.7	0.6	-0.2	1.1	3.5	4.8	3.0	-0.5	1.1	0.2	0.0	-0.1	-0.3	-0.2	0.0
0.4	-0.1	-0.6	-0.5	-0.3	-0.2	-0.1	-0.1	-0.7	-0.3	-0.1	0.1	1.0	1.2	0.9	1.5	2.3	0.9	1.5	0.6	2.8	0.8	1.3	0.2	0.1	0.7	-0.2	-0.3	0.5	0.4	-0.9	-0.8	-1.0	-0.6	-0.4	-0.4
-0.9	-0.2	-1.3	-0.8	-0.5	-0.4	-0.1	0.5	1.1	2.0	-0.9	-0.7	0.1	0.1	0.6	0.9	1.0	1.3	2.0	1.5	3.1	0.9	1.4	0.9	0.9	0.4	0.2	0.8	0.3	1.0	9.4	-0.7		-0.1	0.4	-1.2
-0.2	-0.0	-0.1	-0.2	-0.1	-0.2	-0.0	0.5	0.5	1.3	2.2	0.9	1.7	0.4	0.4	0.2	0.2	0.3	0.5	0.8	1.4	0.7	0.8	-0.3	-0.2	-0.2	-0.0	0.3	0.1	0.2	-0.5	-0.4	-0.4	0.2	0.3	0.1
0.3	-0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2	1.5	-1.2	-1.0	-0.5	0.2	0.1	0.1	0.1	0.0	0.9	1.0	0.4	0.1	-0.0	-0.2	-0.1	0.3	0.2	0.2	0.8				-0.0	0.3	0.4
0.3	0.2	0.2	0.3	0.2	-0.0	0.1	0.4	0.7	0.5	0.8	-0.0	0.3	0.0	0.2	0.2	0.1	0.1	0.2	0.2	-0.2	0.4	0.5	0.9	0.3	-0.0	0.1	0.2	0.1	0.1	-0.3	0.3	-1.3	-0.3	0.2	0.3
0.0	0.2	0.1	-0.1	-0.3	-0.6	-0.4	-0.2	-0.2	-0.2	-0.5	-0.0	-0.6	-0.2	-0.2	0.2	-0.0	-0.1	-0.4	-0.3	-0.5	-0.5	-0.3	-0.1	-0.1	-0.3	0.2	-0.0	0.2	-0.2	-0.4	-0.5	-0.8	-1.0	-0.9	0.1
														-0.1	-0.1	-0.5	-0.7	-0.6	-0.3	-0.6	-0.1	-0.2	-0.4	-0.3	-0.3	-0.5	-0.6								
-0.0	-0.4	-0.7	-0.0	-0.2	-0.2	-0.0	0.2	0.1	0.3	-0.2	0.4	0.2	-0.3	-0.1	-0.6	-0.2	-0.8	0.1	0.5	0.4	-0.1	1.1	-0.9	-0.0	-0.8	-1.2	-2.1	-0.7	0.8	-0.9	0.3	-0.3	-0.1	-0.2	-0.1
-0.1	-0.3	-0.2	-0.6	-0.2	0.2	0.1	-0.2	0.2	-0.6	-0.4	0.0	-0.9	-1.0	-0.9	-0.4	-0.1	-0.5	-1.1	-0.6	2.0				2.0	0.2									-1.3	-0.1
1.3	0.3	0.9	0.8	2.5	1.4				0.0	2.3		-3.0	-0.2																					0.6	0.7

Figure 14. SATOB 701 - 1000 hPa mean RMS O-B vector differences (ms-1). FEBRUARY 2006
All observations
Values are plotted where greater than 10 obs are present



3.7	3.6	4.4	3.6	3.9	3.8	3.7	3.9	3.6	4.9	3.9	5.4	4.5	4.2	4.6	5.0	5.5	4.3	4.2	4.4	4.6	4.8	4.7	4.6	4.4	4.6	4.4	4.3	4.1	4.0	3.8	3.6	3.7	3.8	4.2	3.8
4.2	4.3	4.5	4.2	4.1	4.1	4.0	3.7	4.0	4.5	5.5	5.3	5.5			5.8	4.7	4.0	3.7	3.8	3.8	3.7	3.7	3.8	3.9	4.2	3.8	3.9	4.3	4.7	4.0	4.1	4.5	4.1	4.3	4.6
4.5	4.6	4.4	4.6	4.0	3.8	3.8	3.7	3.9	4.4	4.4	4.9	4.7	4.7	4.1	6.1	4.0	3.5	3.4	3.9	3.8	3.9	3.7	3.5	3.6	3.3	3.9	3.7	4.8					3.6	4.1	4.3
3.1	3.3	3.3	3.1	3.1	4.0	4.5	4.4	4.3	4.7	4.7	3.7	4.0	3.2	2.9	2.6	3.5	3.8	3.4	4.0	4.8	6.1	8.2	6.6	5.8	4.9	6.1									
3.3	3.1	2.9	2.9	2.8	3.1	5.6	4.4	4.7	4.6	4.9	4.3	4.1	3.8	3.4	3.4	3.3	3.9	5.5	5.6	4.9	6.8	10.1	9.5	9.5	10.1			7.5			2.9	3.2	3.3	3.4	3.2
3.1	3.2	2.8	2.8	2.6	2.6	3.2	4.5	4.4	4.3	3.3	3.3	3.1	3.0	3.6	3.7	3.4	3.8	5.9	4.9	6.3	7.4	9.5	8.6	9.2	23.5					4.0	3.0	3.4	3.8	3.3	3.0
2.4	2.5	2.7	2.7	2.7	2.6	3.5	3.8	3.3	3.2	3.1	2.8	2.6	2.4	2.5	3.3	4.6	18.8	15.5	12.9	20.6	12.9	13.7	14.4	15.3	19.1	17.9	8.7	7.9	6.7	3.5	3.1	2.8	2.6	2.6	2.5
2.4	2.6	2.8	2.9	3.0	3.2	3.4	2.9	4.2	2.9	2.9	2.5	2.5	2.4	2.6	7.7	20.4	21.3	19.8	21.6	21.5	10.5	8.8	5.0	8.0	10.4	14.2	10.1	5.5	5.3	3.1	2.7	2.4	2.4	2.4	2.5
3.3	2.8	2.8	2.7	2.9	2.9	2.9	3.1	3.7	4.1	3.9	3.1	3.0	3.3	3.8	7.4	8.4	5.6	6.2	10.1	9.4	6.7	6.6	4.1	4.1	5.6	3.8	4.5	6.4	4.7	2.7	2.2	2.3	2.2	2.3	2.6
3.5	3.3	3.1	2.8	2.5	2.5	2.6	2.8	3.2	3.8	2.6	2.7	2.4	3.3	3.4	3.6	3.5	4.4	5.2	5.5	7.3	5.9	6.3	4.8	4.9	3.9	3.9	4.2	3.6	4.3	5.4	2.9		2.4	2.5	3.0
2.8	2.0	2.0	1.8	1.9	2.0	2.3	2.6	2.5	3.1	4.1	3.2	2.8	3.2	2.9	2.3	2.4	2.4	2.6	3.6	4.2	4.5	5.1	3.3	3.0	2.7	3.0	2.9	3.6	6.0	6.3	3.5	2.8	2.2	2.6	2.7
2.5	2.9	2.7	2.7	2.1	1.8	1.8	2.1	2.1	2.3	3.1	3.7	4.0	4.8	3.1	2.3	2.2	2.1	2.5	4.0	4.1	3.8	4.4	2.9	2.6	2.7	2.6	2.3	3.5	6.2				2.4	2.6	2.7
2.6	2.5	2.4	2.5	2.9	3.0	2.6	2.5	2.8	2.6	2.6	4.4	3.2	3.5	3.5	3.6	3.5	3.5	3.3	3.9	4.6	4.7	4.4	5.2	4.0	3.8	3.3	3.1	3.3	4.3	3.0	3.2	3.3	2.9	2.8	2.7
2.7	2.8	2.8	2.8	2.9	2.8	2.8	2.6	2.6	2.7	2.9	3.6	2.8	3.2	3.5	3.9	3.9	4.3	4.6	4.1	4.2	4.2	4.3	4.7	4.4	4.6	4.3	4.1	4.0	3.5	3.0	2.9	3.0	3.0	3.0	3.3
														5.5	5.1	3.4	3.5	3.1	3.1	3.6	2.9	3.3	3.2	3.1	2.9	3.5	2.6								
3.1	3.0	2.8	3.3	3.2	3.1	3.4	3.3	3.3	3.3	3.4	4.8	3.9	3.9	3.4	3.0	3.3	4.0	4.0	3.8	3.2	3.4	3.8	4.4	4.1	3.6	3.5	4.0	4.7	4.2	4.5	3.4	3.8	3.7	3.5	3.4
3.6	3.4	3.8	3.9	3.6	3.2	3.3	3.8	3.5	4.2	3.6	4.1	4.1	4.0	3.8	3.6	3.7	4.3	4.1	5.5	5.1				4.6	3.4									4.9	3.8
4.1	3.8	4.2	3.8	4.2	3.2				2.9	3.8		2.7	3.5																					3.8	4.2

Figure 15. SATOB 401 - 700 hPa mean daily count. FEBRUARY 2006
Global average number of observations in 24 hours = 83702



229	261	277	296	301	327	341	351	337	374	323	310	284	282	296	313	339	346	297	270	240	229	209	204	192	204	208	213	232	252	241	240	232	242	250	222
667	704	764	786	808	862	904	928	1039	1105	981	753	757	719	736	931	935	869	788	762	726	649	589	551	534	637	737	684	686	660	634	653	734	810	804	715
95	130	115	106	107	103	86	80	84	105	105	98	94	125	139	104	68	75	72	102	124	110	80	63	57	101	128	108	121	114	89	76	153	160	173	133
41	99	110	156	120	82	142	127	118	71	89	71	105	94	42	53	81	69	100	76	69	60	62	68	71	64	34	8	0							
302	296	199	211	132	123	141	274	390	284	252	328	217	161	167	95	116	161	122	114	160	184	110	133	143	85	57	41	29	10	10	12	10	15	16	58
119	217	153	257	176	165	90	98	268	200	189	300	190	160	176	164	87	107	124	177	209	160	130	85	77	28	34	19	31	28	12	8	10	11	14	87
41	133	89	101	168	133	54	37	51	56	47	73	43	72	106	177	103	97	79	76	91	61	99	70	57	51	37	42	58	60	5	5	2	2	4	46
60	55	79	108	146	144	56	22	29	92	16	47	62	85	86	56	41	29	11	7	9	16	28	37	38	40	30	14	20	16	3	0	0	1	1	8
50	45	54	61	71	90	79	103	107	101	54	78	98	47	65	38	21	15	12	17	28	66	12	41	24	13	9	8	13	10	1	0	0		0	1
8	32	33	55	96	123	40	121	177	130	32	14	20	22	27	19	28	52	80	48	44	30	25	32	20	13	7	6	4	3	0	0	0		0	0
16	18	19	23	41	67	22	72	41	34	11	20	13	22	26	40	40	17	17	37	26	15	11	8	15	17	31	23	10	3	1	0	0	0	0	3
26	35	44	28	32	37	26	22	44	43	38	25	38	46	33	39	32	55	68	59	34	14	6	15	21	29	29	22	10	6	1	1	0	0	0	25
52	49	52	29	53	98	131	65	78	51	24	35	48	55	52	61	34	50	54	52	30	44	23	28	34	38	38	31	20	8	1	2	2	2	2	24
17	21	23	19	14	31	117	122	119	113	60	44	74	112	148	76	86	115	111	97	110	116	81	74	78	66	59	60	34	9	10	10	7	5	2	10
													0	14	68	102	126	154	128	101	83	89	122	118	111	96	46	0							
45	43	56	76	58	34	72	86	71	31	37	50	55	64	44	73	74	55	21	27	33	48	35	14	33	58	49	26	38	75	89	69	41	50	101	87
397	421	420	400	378	391	402	410	411	412	420	466	493	547	455	435	496	365	236	190	197	218	156	157	221	265	146	73	138	223	242	291	337	364	488	436
120	127	130	113	112	125	137	141	151	153	152	164	170	149	132	115	98	87	77	62	52	35	21	17	14	17	20	32	41	48	55	54	63	69	92	102

Figure 16. SATOB 401 - 700 hPa vector mean wind. FEBRUARY 2006
All observations
Arrows are plotted where greater than 10 obs are present

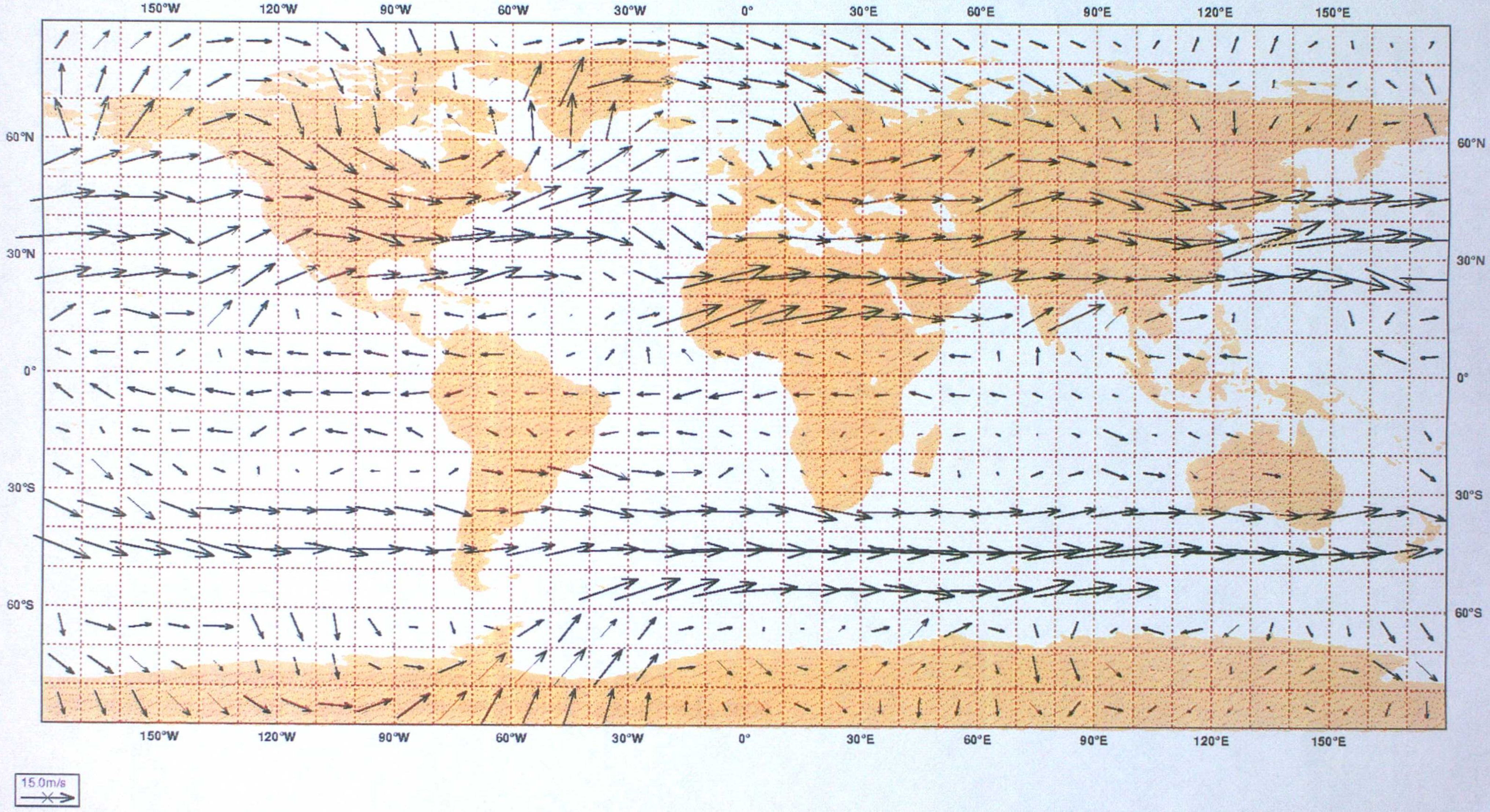

150°W
120°W
90°W
60°W
30°W
0°
30°E
60°E
90°E
120°E
150°E
60°N
30°N
0°
30°S
60°S
15.0m/s

Figure 17. SATOB 401 - 700 hPa mean vector wind differences. FEBRUARY 2006
All observations
Arrows are plotted where greater than 10 obs are present

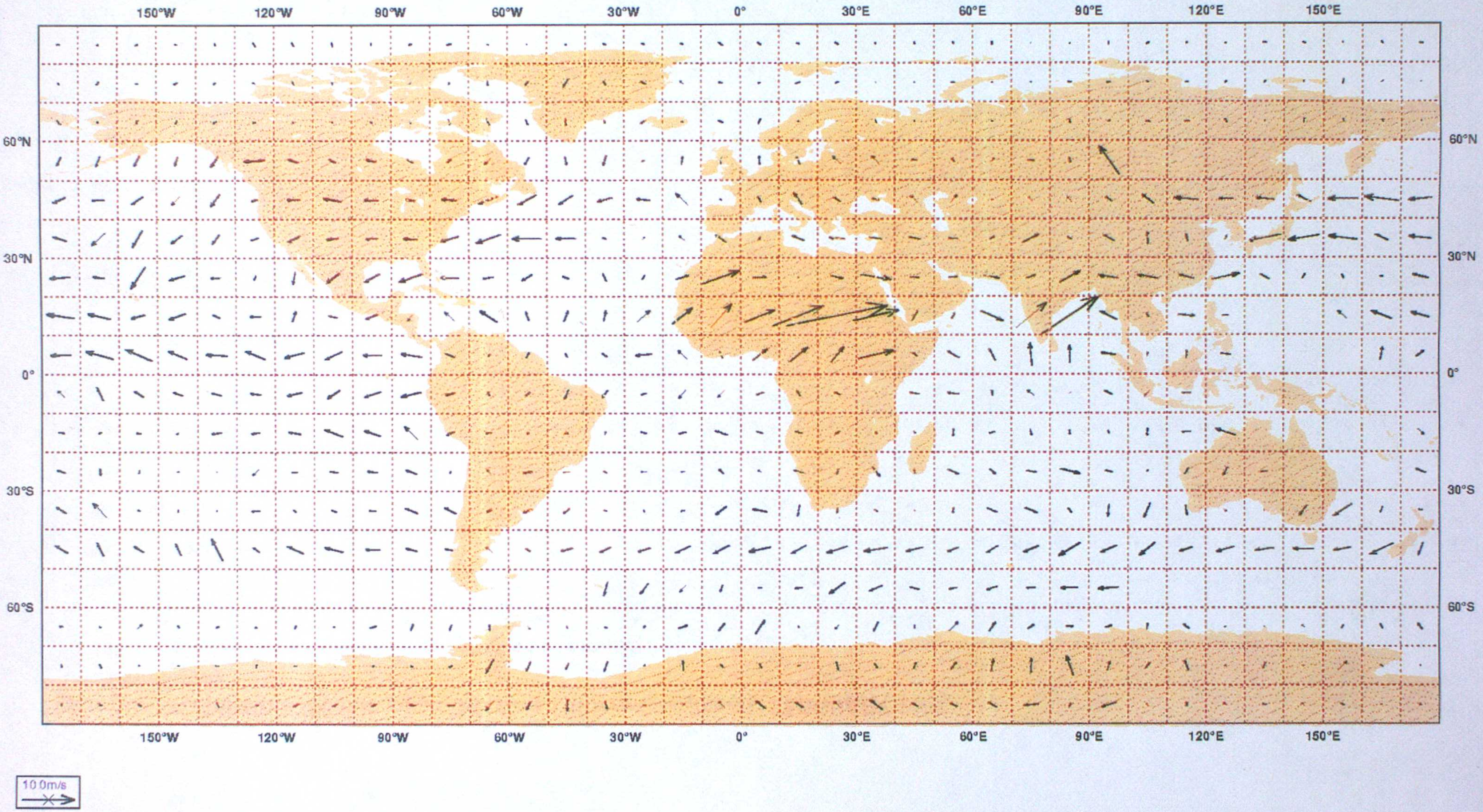
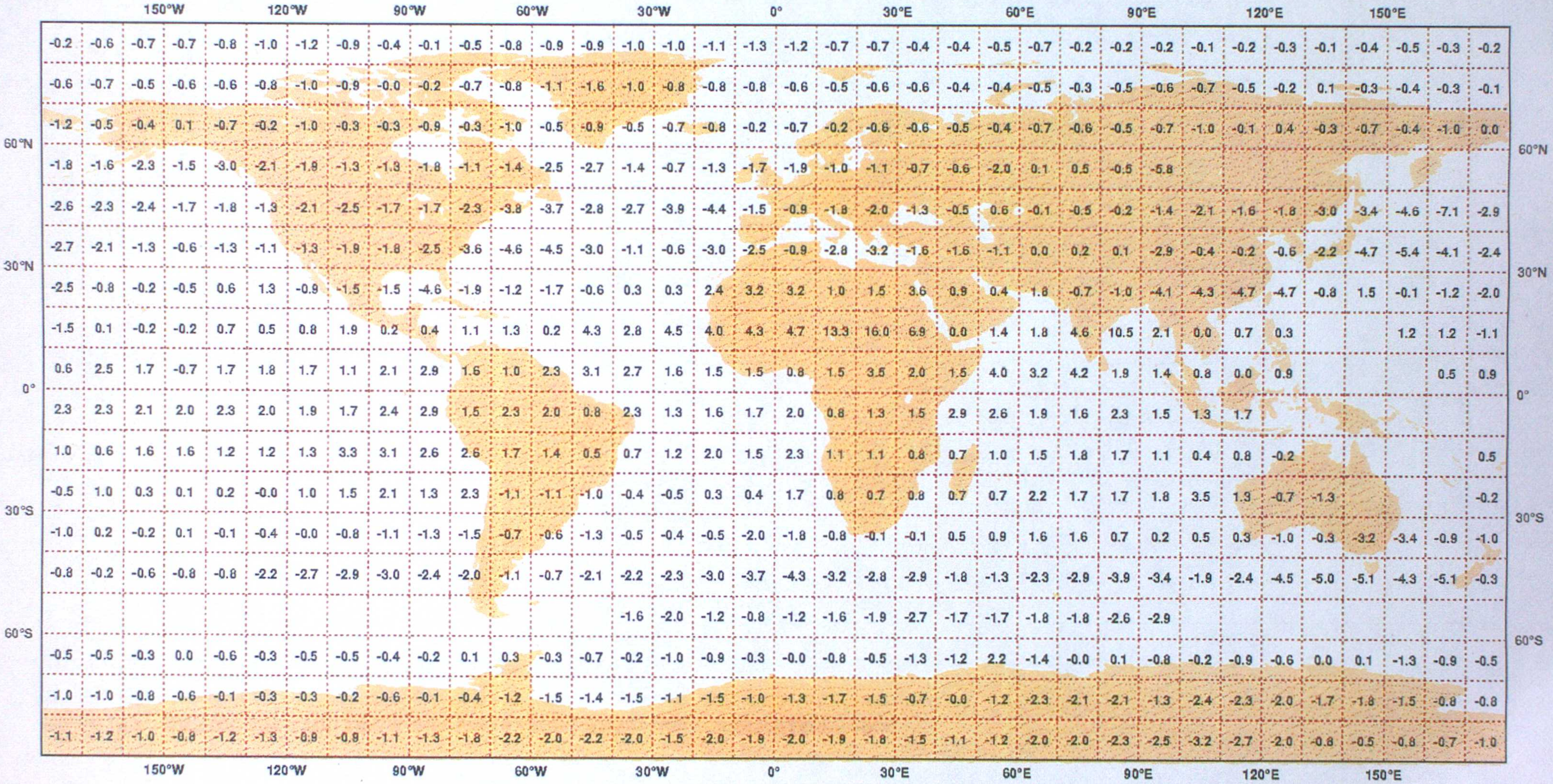
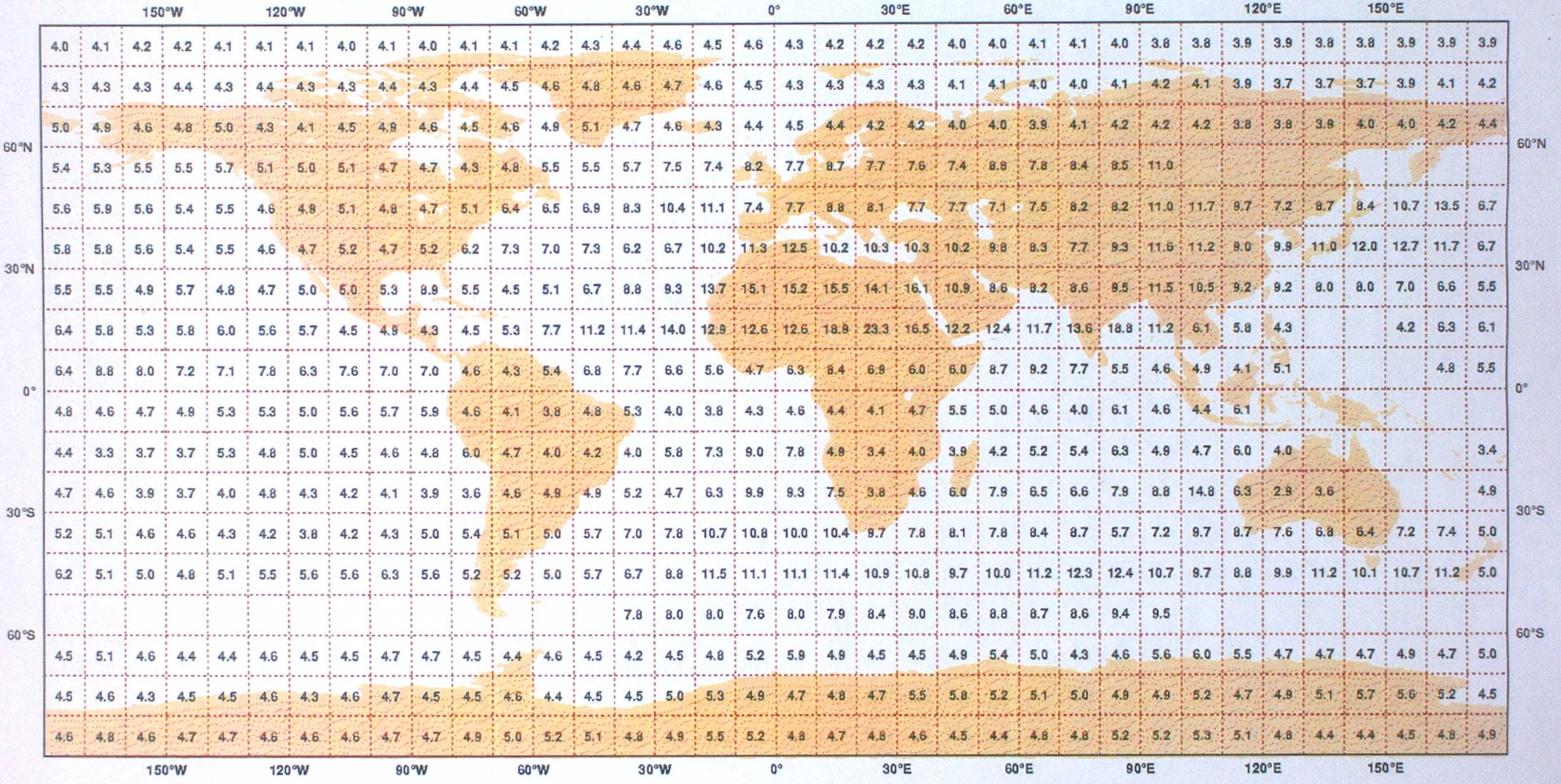

150°W
120°W
90°W
60°W
30°W
0°
30°E
60°E
90°E
120°E
150°E
60°N
30°N
0°
30°S
60°S
10.0m/s

Figure 18. SATOB 401 - 700 hPa mean O-B speed differences (ms-1). FEBRUARY 2006
All observations
Values are plotted where greater than 10 obs are present



-0.2	-0.6	-0.7	-0.7	-0.8	-1.0	-1.2	-0.9	-0.4	-0.1	-0.5	-0.8	-0.9	-0.9	-1.0	-1.0	-1.1	-1.3	-1.2	-0.7	-0.7	-0.4	-0.4	-0.5	-0.7	-0.2	-0.2	-0.2	-0.1	-0.2	-0.3	-0.1	-0.4	-0.5	-0.3	-0.2
-0.6	-0.7	-0.5	-0.6	-0.6	-0.8	-1.0	-0.9	-0.0	-0.2	-0.7	-0.8	-1.1	-1.6	-1.0	-0.8	-0.8	-0.8	-0.6	-0.5	-0.6	-0.6	-0.4	-0.4	-0.5	-0.3	-0.5	-0.6	-0.7	-0.5	-0.2	0.1	-0.3	-0.4	-0.3	-0.1
-1.2	-0.5	-0.4	0.1	-0.7	-0.2	-1.0	-0.3	-0.3	-0.9	-0.3	-1.0	-0.5	-0.9	-0.5	-0.7	-0.8	-0.2	-0.7	-0.2	-0.6	-0.6	-0.5	-0.4	-0.7	-0.6	-0.5	-0.7	-1.0	-0.1	0.4	-0.3	-0.7	-0.4	-1.0	0.0
-1.8	-1.6	-2.3	-1.5	-3.0	-2.1	-1.9	-1.3	-1.3	-1.8	-1.1	-1.4	-2.5	-2.7	-1.4	-0.7	-1.3	-1.7	-1.9	-1.0	-1.1	-0.7	-0.6	-2.0	0.1	0.5	-0.5	-5.8								
-2.6	-2.3	-2.4	-1.7	-1.8	-1.3	-2.1	-2.5	-1.7	-1.7	-2.3	-3.8	-3.7	-2.8	-2.7	-3.9	-4.4	-1.5	-0.9	-1.8	-2.0	-1.3	-0.5	0.6	-0.1	-0.5	-0.2	-1.4	-2.1	-1.6	-1.8	-3.0	-3.4	-4.6	-7.1	-2.9
-2.7	-2.1	-1.3	-0.6	-1.3	-1.1	-1.3	-1.9	-1.8	-2.5	-3.6	-4.6	-4.5	-3.0	-1.1	-0.6	-3.0	-2.5	-0.9	-2.8	-3.2	-1.6	-1.6	-1.1	0.0	0.2	0.1	-2.9	-0.4	-0.2	-0.6	-2.2	-4.7	-5.4	-4.1	-2.4
-2.5	-0.8	-0.2	-0.5	0.6	1.3	-0.9	-1.5	-1.5	-4.6	-1.9	-1.2	-1.7	-0.6	0.3	0.3	2.4	3.2	3.2	1.0	1.5	3.6	0.9	0.4	1.8	-0.7	-1.0	-4.1	-4.3	-4.7	-4.7	-0.8	1.5	-0.1	-1.2	-2.0
-1.5	0.1	-0.2	-0.2	0.7	0.5	0.8	1.9	0.2	0.4	1.1	1.3	0.2	4.3	2.8	4.5	4.0	4.3	4.7	13.3	16.0	6.9	0.0	1.4	1.8	4.6	10.5	2.1	0.0	0.7	0.3			1.2	1.2	-1.1
0.6	2.5	1.7	-0.7	1.7	1.8	1.7	1.1	2.1	2.9	1.6	1.0	2.3	3.1	2.7	1.6	1.5	1.5	0.8	1.5	3.5	2.0	1.5	4.0	3.2	4.2	1.9	1.4	0.8	0.0	0.9				0.5	0.9
2.3	2.3	2.1	2.0	2.3	2.0	1.9	1.7	2.4	2.9	1.5	2.3	2.0	0.8	2.3	1.3	1.6	1.7	2.0	0.8	1.3	1.5	2.9	2.6	1.9	1.6	2.3	1.5	1.3	1.7						
1.0	0.6	1.6	1.6	1.2	1.2	1.3	3.3	3.1	2.6	2.6	1.7	1.4	0.5	0.7	1.2	2.0	1.5	2.3	1.1	1.1	0.8	0.7	1.0	1.5	1.8	1.7	1.1	0.4	0.8	-0.2					0.5
-0.5	1.0	0.3	0.1	0.2	-0.0	1.0	1.5	2.1	1.3	2.3	-1.1	-1.1	-1.0	-0.4	-0.5	0.3	0.4	1.7	0.8	0.7	0.8	0.7	0.7	2.2	1.7	1.7	1.8	3.5	1.3	-0.7	-1.3				-0.2
-1.0	0.2	-0.2	0.1	-0.1	-0.4	-0.0	-0.8	-1.1	-1.3	-1.5	-0.7	-0.6	-1.3	-0.5	-0.4	-0.5	-2.0	-1.8	-0.8	-0.1	-0.1	0.5	0.9	1.6	1.6	0.7	0.2	0.5	0.3	-1.0	-0.3	-3.2	-3.4	-0.9	-1.0
-0.8	-0.2	-0.6	-0.8	-0.8	-2.2	-2.7	-2.9	-3.0	-2.4	-2.0	-1.1	-0.7	-2.1	-2.2	-2.3	-3.0	-3.7	-4.3	-3.2	-2.8	-2.9	-1.8	-1.3	-2.3	-2.9	-3.9	-3.4	-1.9	-2.4	-4.5	-5.0	-5.1	-4.3	-5.1	-0.3
														-1.6	-2.0	-1.2	-0.8	-1.2	-1.6	-1.9	-2.7	-1.7	-1.7	-1.8	-1.8	-2.6	-2.9								
-0.5	-0.5	-0.3	0.0	-0.6	-0.3	-0.5	-0.5	-0.4	-0.2	0.1	0.3	-0.3	-0.7	-0.2	-1.0	-0.9	-0.3	-0.0	-0.8	-0.5	-1.3	-1.2	2.2	-1.4	-0.0	0.1	-0.8	-0.2	-0.9	-0.6	0.0	0.1	-1.3	-0.9	-0.5
-1.0	-1.0	-0.8	-0.6	-0.1	-0.3	-0.3	-0.2	-0.6	-0.1	-0.4	-1.2	-1.5	-1.4	-1.5	-1.1	-1.5	-1.0	-1.3	-1.7	-1.5	-0.7	-0.0	-1.2	-2.3	-2.1	-2.1	-1.3	-2.4	-2.3	-2.0	-1.7	-1.8	-1.5	-0.8	-0.8
-1.1	-1.2	-1.0	-0.8	-1.2	-1.3	-0.9	-0.9	-1.1	-1.3	-1.8	-2.2	-2.0	-2.2	-2.0	-1.5	-2.0	-1.9	-2.0	-1.9	-1.8	-1.5	-1.1	-1.2	-2.0	-2.0	-2.3	-2.5	-3.2	-2.7	-2.0	-0.8	-0.5	-0.8	-0.7	-1.0

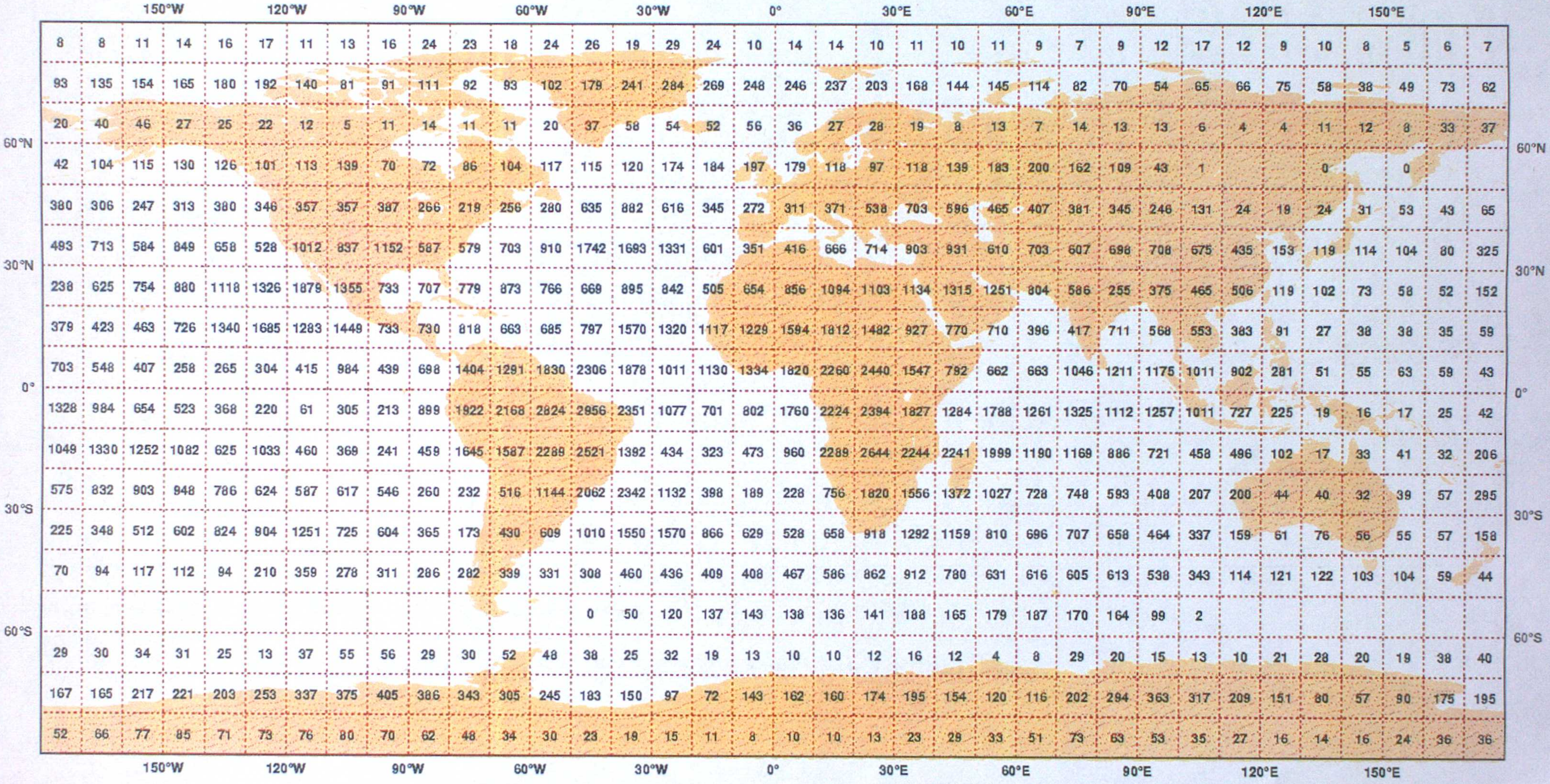
Figure 19. SATOB 401 - 700 hPa mean RMS O-B vector differences (ms-1). FEBRUARY 2006
All observations
Values are plotted where greater than 10 obs are present



4.0	4.1	4.2	4.2	4.1	4.1	4.1	4.0	4.1	4.0	4.1	4.1	4.2	4.3	4.4	4.6	4.5	4.6
4.3	4.3	4.3	4.4	4.3	4.4	4.3	4.3	4.4	4.3	4.4	4.5	4.6	4.8	4.6	4.7	4.6	4.5
5.0	4.9	4.6	4.8	5.0	4.3	4.1	4.5	4.9	4.6	4.5	4.6	4.9	5.1	4.7	4.6	4.3	4.4
5.4	5.3	5.5	5.5	5.7	5.1	5.0	5.1	4.7	4.7	4.3	4.8	5.5	5.5	5.7	7.5	7.4	8.2
5.6	5.9	5.6	5.4	5.5	4.6	4.9	5.1	4.8	4.7	5.1	6.4	6.5	6.9	8.3	10.4	11.1	7.4
5.8	5.8	5.6	5.4	5.5	4.6	4.7	5.2	4.7	5.2	6.2	7.3	7.0	7.3	6.2	6.7	10.2	11.3
5.5	5.5	4.9	5.7	4.8	4.7	5.0	5.0	5.3	8.9	5.5	4.5	5.1	6.7	8.8	9.3	13.7	15.1
6.4	5.8	5.3	5.8	6.0	5.6	5.7	4.5	4.9	4.3	4.5	5.3	7.7	11.2	11.4	14.0	12.9	12.6
6.4	8.8	8.0	7.2	7.1	7.8	6.3	7.6	7.0	7.0	4.6	4.3	5.4	6.8	7.7	6.6	5.6	4.7
4.8	4.6	4.7	4.9	5.3	5.3	5.0	5.6	5.7	5.9	4.6	4.1	3.8	4.8	5.3	4.0	3.8	4.3
4.4	3.3	3.7	3.7	5.3	4.8	5.0	4.5	4.6	4.8	6.0	4.7	4.0	4.2	4.0	5.8	7.3	9.0
4.7	4.6	3.9	3.7	4.0	4.8	4.3	4.2	4.1	3.9	3.6	4.6	4.9	4.9	5.2	4.7	6.3	9.9
5.2	5.1	4.6	4.6	4.3	4.2	3.8	4.2	4.3	5.0	5.4	5.1	5.0	5.7	7.0	7.8	10.7	10.8
6.2	5.1	5.0	4.8	5.1	5.5	5.6	5.6	6.3	5.6	5.2	5.2	5.0	5.7	6.7	8.8	11.5	11.1
														7.8	8.0	8.0	7.6
4.5	5.1	4.6	4.4	4.4	4.6	4.5	4.5	4.7	4.7	4.5	4.4	4.6	4.5	4.2	4.5	4.8	5.2
4.5	4.6	4.3	4.5	4.5	4.6	4.3	4.6	4.7	4.5	4.5	4.6	4.4	4.5	4.5	5.0	5.3	4.9
4.6	4.8	4.6	4.7	4.7	4.6	4.6	4.6	4.7	4.7	4.9	5.0	5.2	5.1	4.8	4.9	5.5	5.2

4.3	4.2	4.2	4.2	4.0	4.0	4.1	4.1	4.0	3.8	3.8	3.9	3.9	3.8	3.8	3.9	3.9	3.9
4.3	4.3	4.3	4.3	4.1	4.1	4.0	4.0	4.1	4.2	4.1	3.9	3.7	3.7	3.7	3.9	4.1	4.2
4.5	4.4	4.2	4.2	4.0	4.0	3.9	4.1	4.2	4.2	4.2	3.8	3.8	3.9	4.0	4.0	4.2	4.4
7.7	8.7	7.7	7.6	7.4	8.8	7.8	8.4	8.5	11.0								
7.7	8.8	8.1	7.7	7.7	7.1	7.5	8.2	8.2	11.0	11.7	9.7	7.2	8.7	8.4	10.7	13.5	6.7
12.5	10.2	10.3	10.3	10.2	9.8	8.3	7.7	9.3	11.6	11.2	9.0	9.9	11.0	12.0	12.7	11.7	6.7
15.2	15.5	14.1	16.1	10.9	8.6	8.2	8.6	9.5	11.5	10.5	9.2	9.2	8.0	8.0	7.0	6.6	5.5
12.6	18.9	23.3	16.5	12.2	12.4	11.7	13.6	18.8	11.2	6.1	5.8	4.3			4.2	6.3	6.1
6.3	8.4	6.9	6.0	6.0	8.7	9.2	7.7	5.5	4.6	4.9	4.1	5.1				4.8	5.5
4.6	4.4	4.1	4.7	5.5	5.0	4.6	4.0	6.1	4.6	4.4	6.1						
7.8	4.9	3.4	4.0	3.9	4.2	5.2	5.4	6.3	4.9	4.7	6.0	4.0					3.4
9.3	7.5	3.8	4.6	6.0	7.9	6.5	6.6	7.9	8.8	14.8	6.3	2.9	3.6				4.9
10.0	10.4	9.7	7.8	8.1	7.8	8.4	8.7	5.7	7.2	9.7	8.7	7.6	6.8	6.4	7.2	7.4	5.0
11.1	11.4	10.9	10.8	9.7	10.0	11.2	12.3	12.4	10.7	9.7	8.8	9.9	11.2	10.1	10.7	11.2	5.0
8.0	7.9	8.4	9.0	8.6	8.8	8.7	8.6	9.4	9.5								
5.9	4.9	4.5	4.5	4.9	5.4	5.0	4.3	4.6	5.6	6.0	5.5	4.7	4.7	4.7	4.9	4.7	5.0
4.7	4.8	4.7	5.5	5.8	5.2	5.1	5.0	4.9	4.9	5.2	4.7	4.9	5.1	5.7	5.6	5.2	4.5
4.8	4.7	4.8	4.6	4.5	4.4	4.8	4.8	5.2	5.2	5.3	5.1	4.8	4.4	4.4	4.5	4.8	4.9

Figure 20. SATOB 101 - 400 hPa mean daily count. FEBRUARY 2006
Global average number of observations in 24 hours = 278907



8	8	11	14	16	17	11	13	16	24	23	18	24	26	19	29	24	10	14	14	10	11	10	11	9	7	9	12	17	12	9	10	8	5	6	7
93	135	154	165	180	192	140	81	91	111	92	93	102	179	241	284	269	248	246	237	203	168	144	145	114	82	70	54	65	66	75	58	38	49	73	62
20	40	46	27	25	22	12	5	11	14	11	11	20	37	58	54	52	56	36	27	28	19	8	13	7	14	13	13	6	4	4	11	12	8	33	37
42	104	115	130	126	101	113	139	70	72	86	104	117	115	120	174	184	197	179	118	97	118	139	183	200	162	109	43	1			0		0		
380	306	247	313	380	346	357	357	387	266	219	256	280	635	882	616	345	272	311	371	538	703	596	465	407	381	345	246	131	24	19	24	31	53	43	65
493	713	584	849	658	528	1012	837	1152	587	579	703	910	1742	1683	1331	601	351	416	666	714	903	931	610	703	607	698	708	675	435	153	119	114	104	80	325
238	625	754	880	1118	1326	1879	1355	733	707	779	873	766	669	895	842	505	654	856	1094	1103	1134	1315	1251	804	586	255	375	465	506	119	102	73	58	52	152
379	423	463	726	1340	1685	1283	1449	733	730	818	663	685	797	1570	1320	1117	1229	1594	1812	1482	927	770	710	396	417	711	568	553	383	91	27	38	38	35	59
703	548	407	258	265	304	415	984	439	698	1404	1291	1830	2306	1878	1011	1130	1334	1820	2260	2440	1547	792	662	663	1046	1211	1175	1011	902	281	51	55	63	59	43
1328	984	654	523	368	220	61	305	213	899	1922	2168	2824	2856	2351	1077	701	802	1760	2224	2394	1827	1284	1788	1261	1325	1112	1257	1011	727	225	19	16	17	25	42
1049	1330	1252	1082	625	1033	460	369	241	459	1645	1587	2289	2521	1392	434	323	473	960	2289	2644	2244	2241	1999	1190	1169	886	721	458	496	102	17	33	41	32	206
575	832	903	948	786	624	587	617	546	260	232	516	1144	2062	2342	1132	398	189	228	756	1820	1556	1372	1027	728	748	593	408	207	200	44	40	32	39	57	295
225	348	512	602	824	904	1251	725	604	365	173	430	609	1010	1550	1570	866	629	528	658	918	1292	1159	810	696	707	658	464	337	159	61	76	56	55	57	158
70	94	117	112	94	210	359	278	311	286	282	339	331	308	460	436	409	408	467	586	862	912	780	631	616	605	613	538	343	114	121	122	103	104	59	44
													0	50	120	137	143	138	136	141	188	165	179	187	170	164	99	2							
29	30	34	31	25	13	37	55	56	29	30	52	48	38	25	32	19	13	10	10	12	16	12	4	8	29	20	15	13	10	21	28	20	19	38	40
167	165	217	221	203	253	337	375	405	386	343	305	245	183	150	97	72	143	162	160	174	195	154	120	116	202	294	363	317	209	151	80	57	90	175	195
52	66	77	85	71	73	76	80	70	62	48	34	30	23	19	15	11	8	10	10	13	23	29	33	51	73	63	53	35	27	16	14	16	24	36	36

Figure 21. SATOB 101 - 400 hPa vector mean wind. FEBRUARY 2006
All observations
Arrows are plotted where greater than 10 obs are present

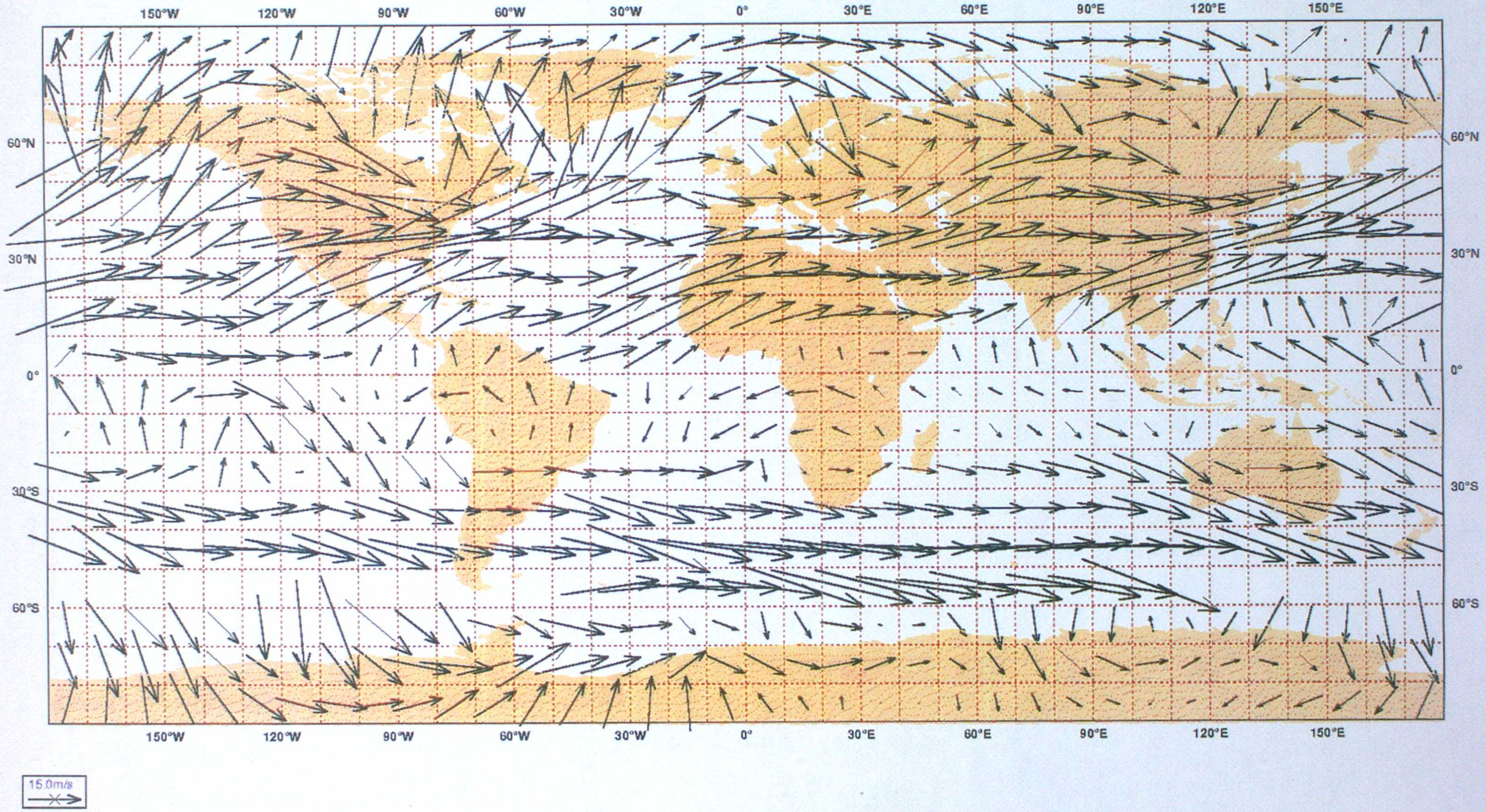

150°W
120°W
90°W
60°W
30°W
0°
30°E
60°E
90°E
120°E
150°E
60°N
30°N
0°
30°S
60°S
15.0m/s

Figure 22. SATOB 101 - 400 hPa mean vector wind differences. FEBRUARY 2006
All observations
Arrows are plotted where greater than 10 obs are present

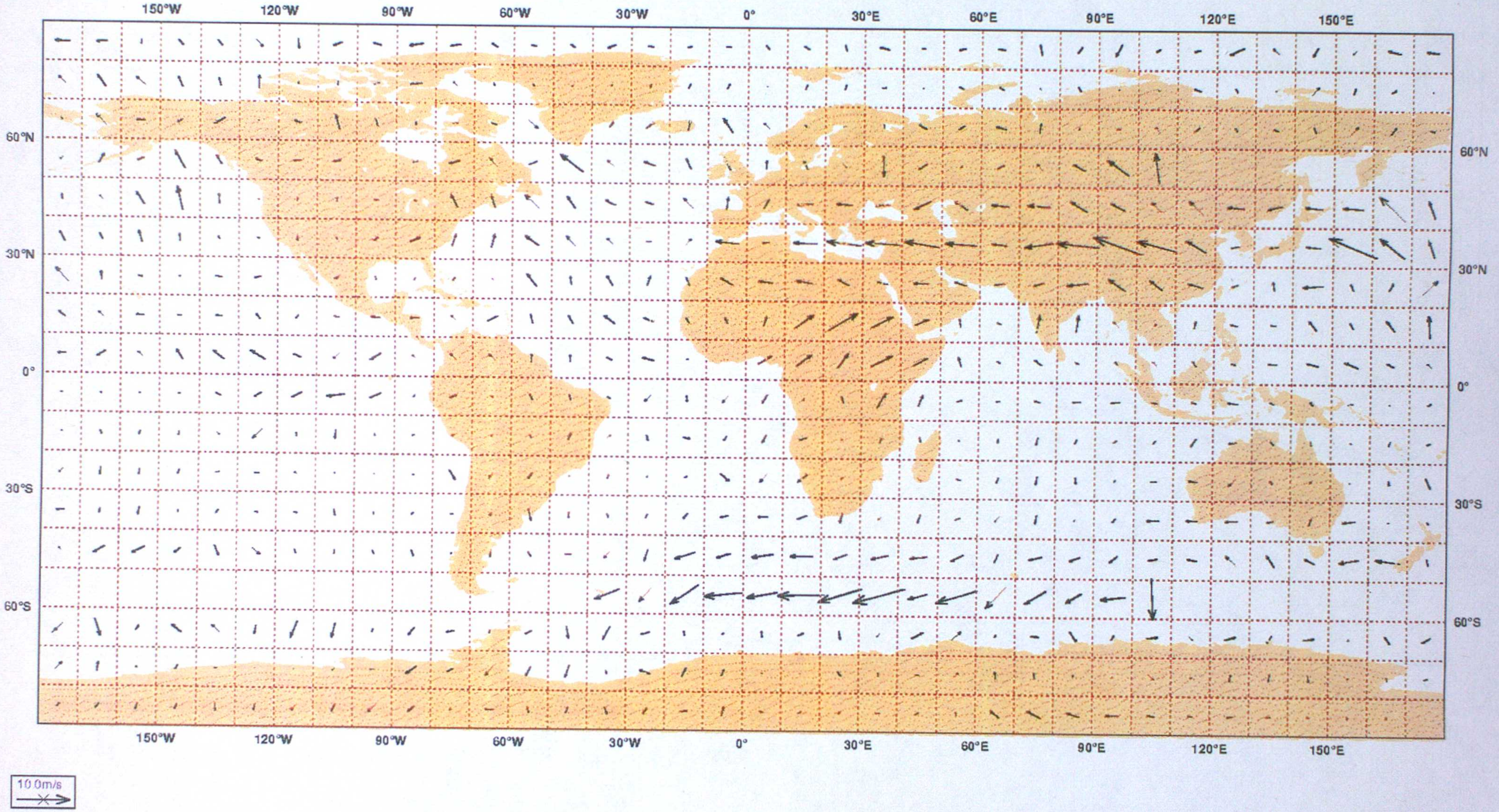
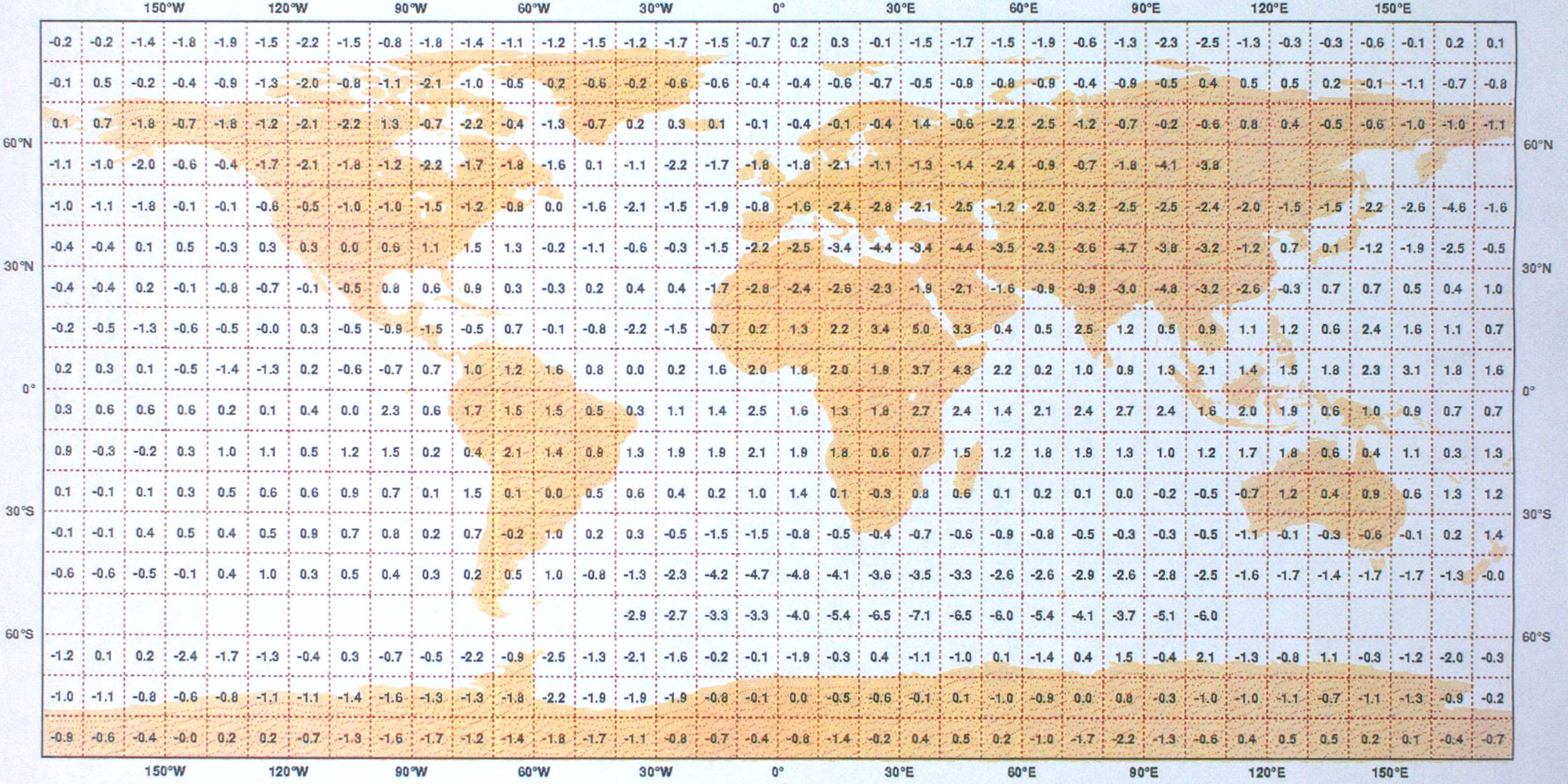
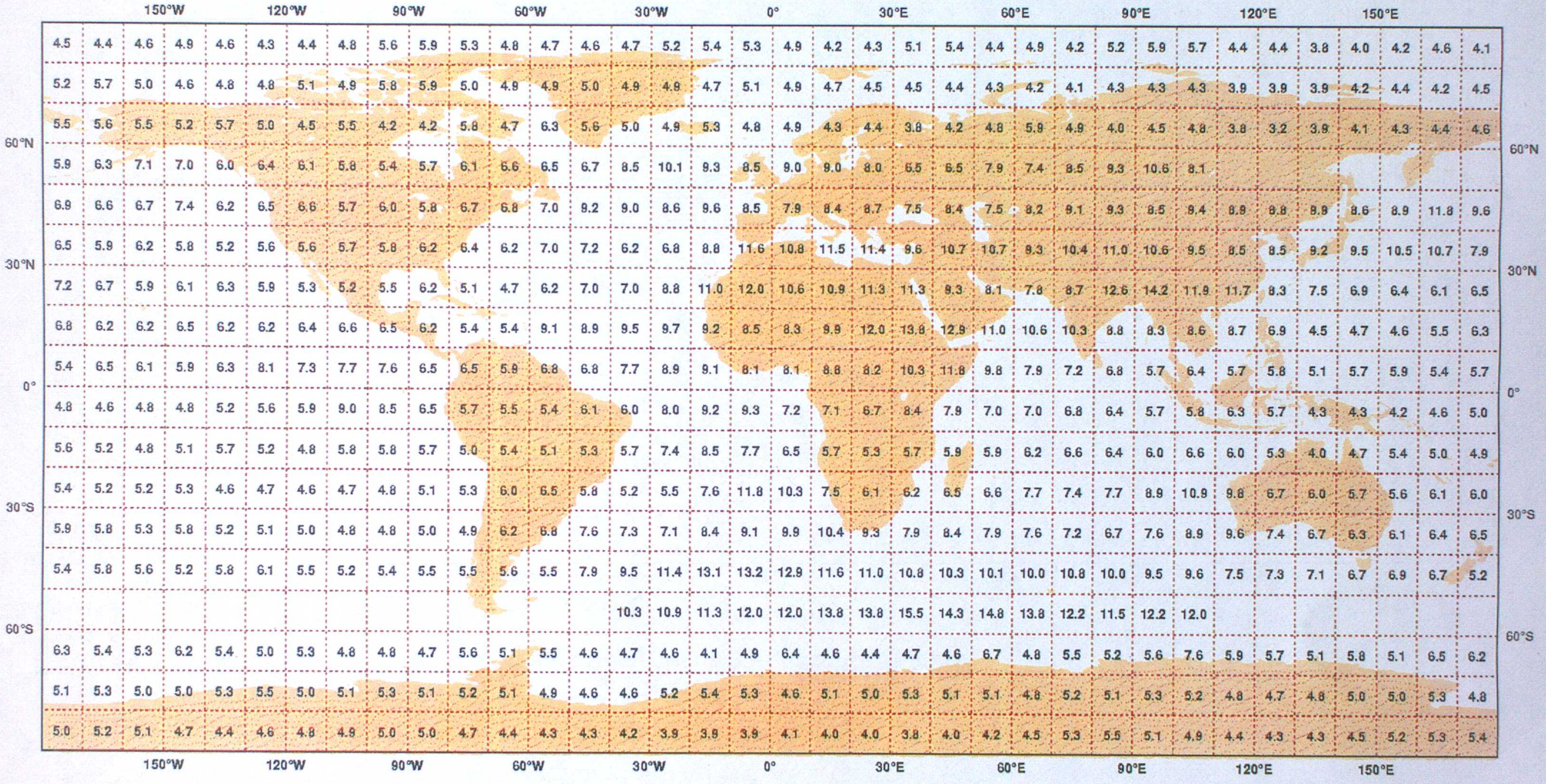

150°W
120°W
90°W
60°W
30°W
0°
30°E
60°E
90°E
120°E
150°E
60°N
30°N
0°
30°S
60°S
10.0m/s

Figure 23. SATOB 101 - 400 hPa mean O-B speed differences (ms-1). FEBRUARY 2006
All observations
Values are plotted where greater than 10 obs are present



-0.2	-0.2	-1.4	-1.8	-1.9	-1.5	-2.2	-1.5	-0.8	-1.8	-1.4	-1.1	-1.2	-1.5	-1.2	-1.7	-1.5	-0.7	0.2	0.3	-0.1	-1.5	-1.7	-1.5	-1.9	-0.6	-1.3	-2.3	-2.5	-1.3	-0.3	-0.3	-0.6	-0.1	0.2	0.1
-0.1	0.5	-0.2	-0.4	-0.9	-1.3	-2.0	-0.8	-1.1	-2.1	-1.0	-0.5	-0.2	-0.6	-0.2	-0.6	-0.6	-0.4	-0.4	-0.6	-0.7	-0.5	-0.9	-0.8	-0.9	-0.4	-0.9	-0.5	0.4	0.5	0.5	0.2	-0.1	-1.1	-0.7	-0.8
0.1	0.7	-1.8	-0.7	-1.8	-1.2	-2.1	-2.2	1.3	-0.7	-2.2	-0.4	-1.3	-0.7	0.2	0.3	0.1	-0.1	-0.4	-0.1	-0.4	1.4	-0.6	-2.2	-2.5	-1.2	-0.7	-0.2	-0.6	0.8	0.4	-0.5	-0.6	-1.0	-1.0	-1.1
-1.1	-1.0	-2.0	-0.6	-0.4	-1.7	-2.1	-1.8	-1.2	-2.2	-1.7	-1.8	-1.6	0.1	-1.1	-2.2	-1.7	-1.8	-1.8	-2.1	-1.1	-1.3	-1.4	-2.4	-0.9	-0.7	-1.8	-4.1	-3.8							
-1.0	-1.1	-1.8	-0.1	-0.1	-0.6	-0.5	-1.0	-1.0	-1.5	-1.2	-0.8	0.0	-1.6	-2.1	-1.5	-1.9	-0.8	-1.6	-2.4	-2.8	-2.1	-2.5	-1.2	-2.0	-3.2	-2.5	-2.5	-2.4	-2.0	-1.5	-1.5	-2.2	-2.6	-4.6	-1.6
-0.4	-0.4	0.1	0.5	-0.3	0.3	0.3	0.0	0.6	1.1	1.5	1.3	-0.2	-1.1	-0.6	-0.3	-1.5	-2.2	-2.5	-3.4	-4.4	-3.4	-4.4	-3.5	-2.3	-3.6	-4.7	-3.8	-3.2	-1.2	0.7	0.1	-1.2	-1.9	-2.5	-0.5
-0.4	-0.4	0.2	-0.1	-0.8	-0.7	-0.1	-0.5	0.8	0.6	0.9	0.3	-0.3	0.2	0.4	0.4	-1.7	-2.8	-2.4	-2.6	-2.3	-1.9	-2.1	-1.6	-0.9	-0.9	-3.0	-4.8	-3.2	-2.6	-0.3	0.7	0.7	0.5	0.4	1.0
-0.2	-0.5	-1.3	-0.6	-0.5	-0.0	0.3	-0.5	-0.9	-1.5	-0.5	0.7	-0.1	-0.8	-2.2	-1.5	-0.7	0.2	1.3	2.2	3.4	5.0	3.3	0.4	0.5	2.5	1.2	0.5	0.9	1.1	1.2	0.6	2.4	1.6	1.1	0.7
0.2	0.3	0.1	-0.5	-1.4	-1.3	0.2	-0.6	-0.7	0.7	1.0	1.2	1.6	0.8	0.0	0.2	1.6	2.0	1.8	2.0	1.9	3.7	4.3	2.2	0.2	1.0	0.9	1.3	2.1	1.4	1.5	1.8	2.3	3.1	1.8	1.6
0.3	0.6	0.6	0.6	0.2	0.1	0.4	0.0	2.3	0.6	1.7	1.5	1.5	0.5	0.3	1.1	1.4	2.5	1.6	1.3	1.8	2.7	2.4	1.4	2.1	2.4	2.7	2.4	1.6	2.0	1.9	0.6	1.0	0.9	0.7	0.7
0.9	-0.3	-0.2	0.3	1.0	1.1	0.5	1.2	1.5	0.2	0.4	2.1	1.4	0.9	1.3	1.9	1.9	2.1	1.9	1.8	0.6	0.7	1.5	1.2	1.8	1.9	1.3	1.0	1.2	1.7	1.8	0.6	0.4	1.1	0.3	1.3
0.1	-0.1	0.1	0.3	0.5	0.6	0.6	0.9	0.7	0.1	1.5	0.1	0.0	0.5	0.6	0.4	0.2	1.0	1.4	0.1	-0.3	0.8	0.6	0.1	0.2	0.1	0.0	-0.2	-0.5	-0.7	1.2	0.4	0.9	0.6	1.3	1.2
-0.1	-0.1	0.4	0.5	0.4	0.5	0.9	0.7	0.8	0.2	0.7	-0.2	1.0	0.2	0.3	-0.5	-1.5	-1.5	-0.8	-0.5	-0.4	-0.7	-0.6	-0.9	-0.8	-0.5	-0.3	-0.3	-0.5	-1.1	-0.1	-0.3	-0.6	-0.1	0.2	1.4
-0.6	-0.6	-0.5	-0.1	0.4	1.0	0.3	0.5	0.4	0.3	0.2	0.5	1.0	-0.8	-1.3	-2.3	-4.2	-4.7	-4.8	-4.1	-3.6	-3.5	-3.3	-2.6	-2.6	-2.9	-2.6	-2.8	-2.5	-1.6	-1.7	-1.4	-1.7	-1.7	-1.3	-0.0
														-2.9	-2.7	-3.3	-3.3	-4.0	-5.4	-6.5	-7.1	-6.5	-6.0	-5.4	-4.1	-3.7	-5.1	-6.0							
-1.2	0.1	0.2	-2.4	-1.7	-1.3	-0.4	0.3	-0.7	-0.5	-2.2	-0.9	-2.5	-1.3	-2.1	-1.6	-0.2	-0.1	-1.9	-0.3	0.4	-1.1	-1.0	0.1	-1.4	0.4	1.5	-0.4	2.1	-1.3	-0.8	1.1	-0.3	-1.2	-2.0	-0.3
-1.0	-1.1	-0.8	-0.6	-0.8	-1.1	-1.1	-1.4	-1.6	-1.3	-1.3	-1.8	-2.2	-1.9	-1.9	-1.9	-0.8	-0.1	0.0	-0.5	-0.6	-0.1	0.1	-1.0	-0.9	0.0	0.8	-0.3	-1.0	-1.0	-1.1	-0.7	-1.1	-1.3	-0.9	-0.2
-0.9	-0.6	-0.4	-0.0	0.2	0.2	-0.7	-1.3	-1.6	-1.7	-1.2	-1.4	-1.8	-1.7	-1.1	-0.8	-0.7	-0.4	-0.8	-1.4	-0.2	0.4	0.5	0.2	-1.0	-1.7	-2.2	-1.3	-0.6	0.4	0.5	0.5	0.2	0.1	-0.4	-0.7

Figure 24. SATOB 101 - 400 hPa mean RMS O-B vector differences (ms-1). FEBRUARY 2006
All observations
Values are plotted where greater than 10 obs are present



4.5	4.4	4.6	4.9	4.6	4.3	4.4	4.8	5.6	5.9	5.3	4.8	4.7	4.6	4.7	5.2	5.4	5.3	4.9	4.2	4.3	5.1	5.4	4.4	4.9	4.2	5.2	5.9	5.7	4.4	4.4	3.8	4.0	4.2	4.6	4.1
5.2	5.7	5.0	4.6	4.8	4.8	5.1	4.9	5.8	5.9	5.0	4.9	4.9	5.0	4.9	4.9	4.7	5.1	4.9	4.7	4.5	4.5	4.4	4.3	4.2	4.1	4.3	4.3	4.3	3.9	3.9	3.9	4.2	4.4	4.2	4.5
5.5	5.6	5.5	5.2	5.7	5.0	4.5	5.5	4.2	4.2	5.8	4.7	6.3	5.6	5.0	4.9	5.3	4.8	4.9	4.3	4.4	3.8	4.2	4.8	5.9	4.9	4.0	4.5	4.8	3.8	3.2	3.9	4.1	4.3	4.4	4.6
5.9	6.3	7.1	7.0	6.0	6.4	6.1	5.8	5.4	5.7	6.1	6.6	6.5	6.7	8.5	10.1	9.3	8.5	9.0	9.0	8.0	6.5	6.5	7.9	7.4	8.5	9.3	10.6	8.1							
6.9	6.6	6.7	7.4	6.2	6.5	6.6	5.7	6.0	5.8	6.7	6.8	7.0	9.2	9.0	8.6	9.6	8.5	7.9	8.4	8.7	7.5	8.4	7.5	8.2	9.1	9.3	8.5	9.4	8.9	8.8	8.9	8.6	8.9	11.8	9.6
6.5	5.9	6.2	5.8	5.2	5.6	5.6	5.7	5.8	6.2	6.4	6.2	7.0	7.2	6.2	6.8	8.8	11.6	10.8	11.5	11.4	9.6	10.7	10.7	9.3	10.4	11.0	10.6	9.5	8.5	8.5	9.2	9.5	10.5	10.7	7.9
7.2	6.7	5.9	6.1	6.3	5.9	5.3	5.2	5.5	6.2	5.1	4.7	6.2	7.0	7.0	8.8	11.0	12.0	10.6	10.9	11.3	11.3	9.3	8.1	7.8	8.7	12.6	14.2	11.9	11.7	8.3	7.5	6.9	6.4	6.1	6.5
6.8	6.2	6.2	6.5	6.2	6.2	6.4	6.6	6.5	6.2	5.4	5.4	9.1	8.9	9.5	9.7	9.2	8.5	8.3	9.9	12.0	13.8	12.9	11.0	10.6	10.3	8.8	8.3	8.6	8.7	6.9	4.5	4.7	4.6	5.5	6.3
5.4	6.5	6.1	5.9	6.3	8.1	7.3	7.7	7.6	6.5	6.5	5.9	6.8	6.8	7.7	8.9	9.1	8.1	8.1	8.8	8.2	10.3	11.8	9.8	7.9	7.2	6.8	5.7	6.4	5.7	5.8	5.1	5.7	5.9	5.4	5.7
4.8	4.6	4.8	4.8	5.2	5.6	5.9	9.0	8.5	6.5	5.7	5.5	5.4	6.1	6.0	8.0	9.2	9.3	7.2	7.1	6.7	8.4	7.9	7.0	7.0	6.8	6.4	5.7	5.8	6.3	5.7	4.3	4.3	4.2	4.6	5.0
5.6	5.2	4.8	5.1	5.7	5.2	4.8	5.8	5.8	5.7	5.0	5.4	5.1	5.3	5.7	7.4	8.5	7.7	6.5	5.7	5.3	5.7	5.9	5.9	6.2	6.6	6.4	6.0	6.6	6.0	5.3	4.0	4.7	5.4	5.0	4.9
5.4	5.2	5.2	5.3	4.6	4.7	4.6	4.7	4.8	5.1	5.3	6.0	6.5	5.8	5.2	5.5	7.6	11.8	10.3	7.5	6.1	6.2	6.5	6.6	7.7	7.4	7.7	8.9	10.9	9.8	6.7	6.0	5.7	5.6	6.1	6.0
5.9	5.8	5.3	5.8	5.2	5.1	5.0	4.8	4.8	5.0	4.9	6.2	6.8	7.6	7.3	7.1	8.4	9.1	9.9	10.4	9.3	7.9	8.4	7.9	7.6	7.2	6.7	7.6	8.9	9.6	7.4	6.7	6.3	6.1	6.4	6.5
5.4	5.8	5.6	5.2	5.8	6.1	5.5	5.2	5.4	5.5	5.5	5.6	5.5	7.9	9.5	11.4	13.1	13.2	12.9	11.6	11.0	10.8	10.3	10.1	10.0	10.8	10.0	9.5	9.6	7.5	7.3	7.1	6.7	6.9	6.7	5.2
														10.3	10.9	11.3	12.0	12.0	13.8	13.8	15.5	14.3	14.8	13.8	12.2	11.5	12.2	12.0							
6.3	5.4	5.3	6.2	5.4	5.0	5.3	4.8	4.8	4.7	5.6	5.1	5.5	4.6	4.7	4.6	4.1	4.9	6.4	4.6	4.4	4.7	4.6	6.7	4.8	5.5	5.2	5.6	7.6	5.9	5.7	5.1	5.8	5.1	6.5	6.2
5.1	5.3	5.0	5.0	5.3	5.5	5.0	5.1	5.3	5.1	5.2	5.1	4.9	4.6	4.6	5.2	5.4	5.3	4.6	5.1	5.0	5.3	5.1	5.1	4.8	5.2	5.1	5.3	5.2	4.8	4.7	4.8	5.0	5.0	5.3	4.8
5.0	5.2	5.1	4.7	4.4	4.6	4.8	4.9	5.0	5.0	4.7	4.4	4.3	4.3	4.2	3.9	3.8	3.9	4.1	4.0	4.0	3.8	4.0	4.2	4.5	5.3	5.5	5.1	4.9	4.4	4.3	4.3	4.5	5.2	5.3	5.4

MONITORING OF SATELLITE TEMPERATURES

MONITORING CENTRE: EXETER

MONTH: Feb 06

Monitoring procedures

Period :One calendar month.

Data monitored :Reports from NOAA-15, NOAA-16 and NOAA-17.

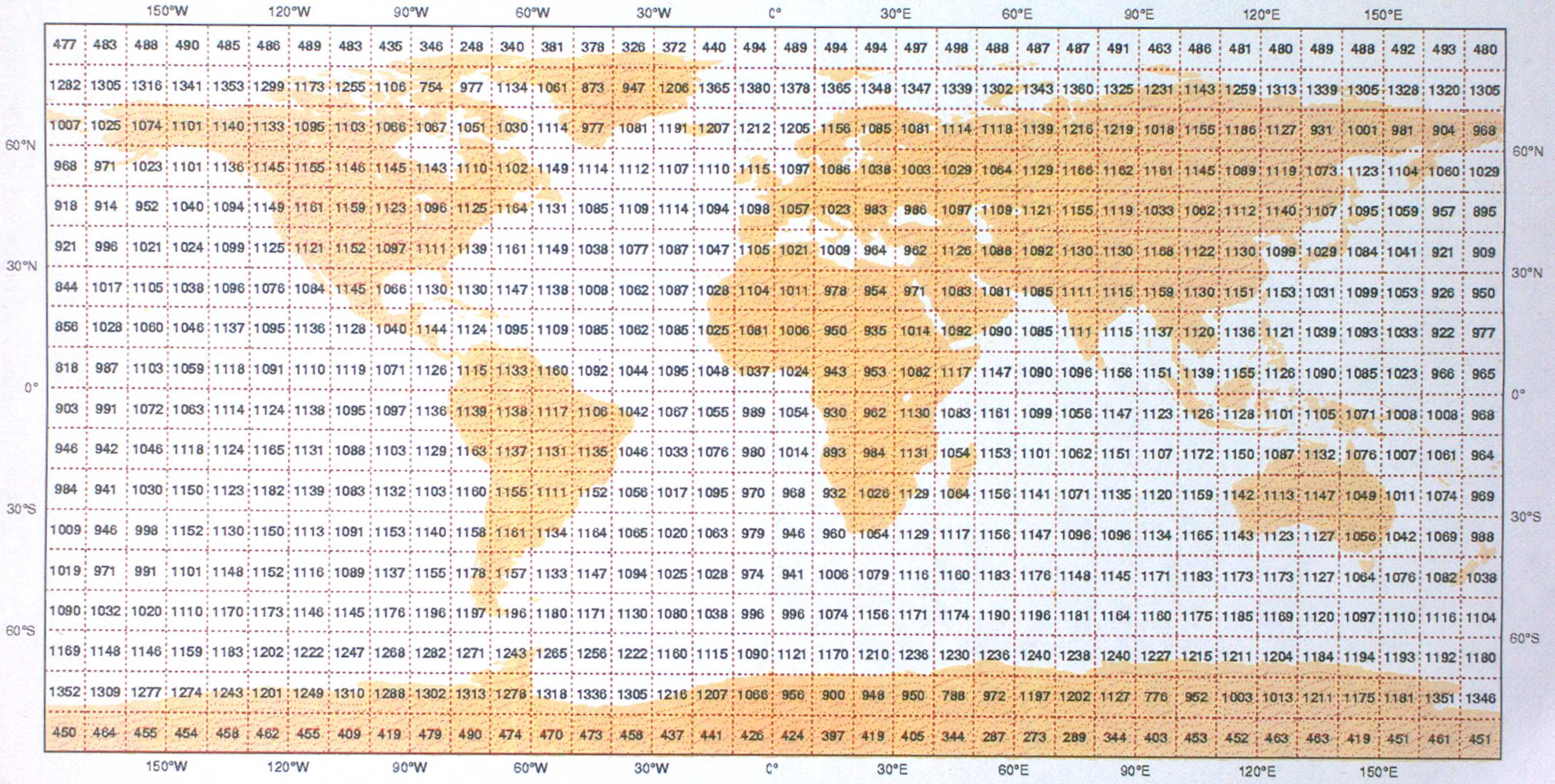
Standard of comparison :Background field from UKMO global model.

Selection Criteria :All soundings.

Data Extracted :Sounding channels (and approximate weighting function peaks, hPa)
HIRS8 (Surface)
HIRS15 (700)
HIRS11 (500-700)
HIRS4 (400)
AMSUA5 (700)
AMSUA7 (300)
AMSUA9 (100)

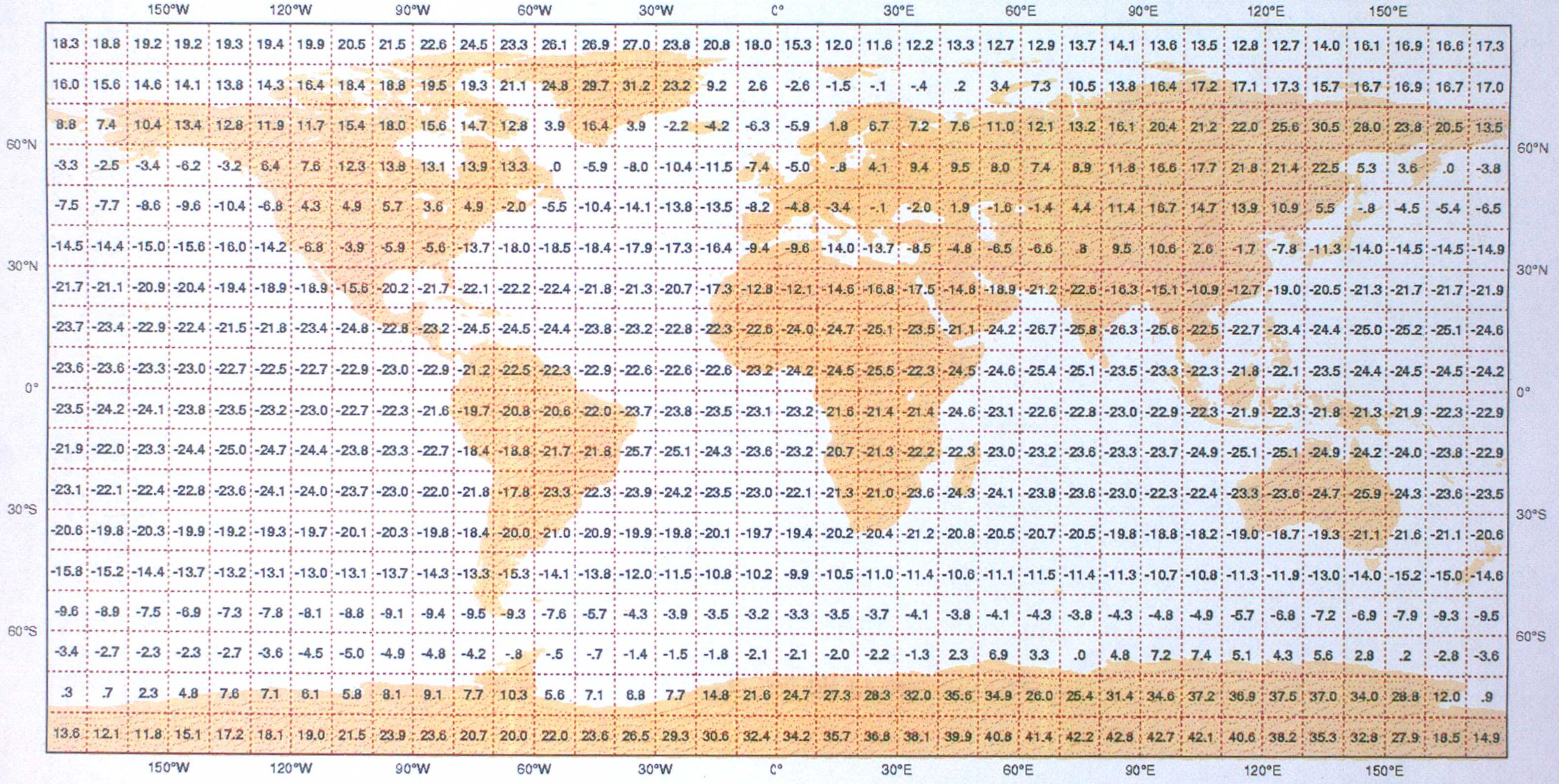
:Mean and standard deviation observation-minus-background brightness temperature differences

Figure 25. ATOVS mean daily count. FEBRUARY 2006
NOAA15, using all observations
Global average number of observations in 24 hours = 669099



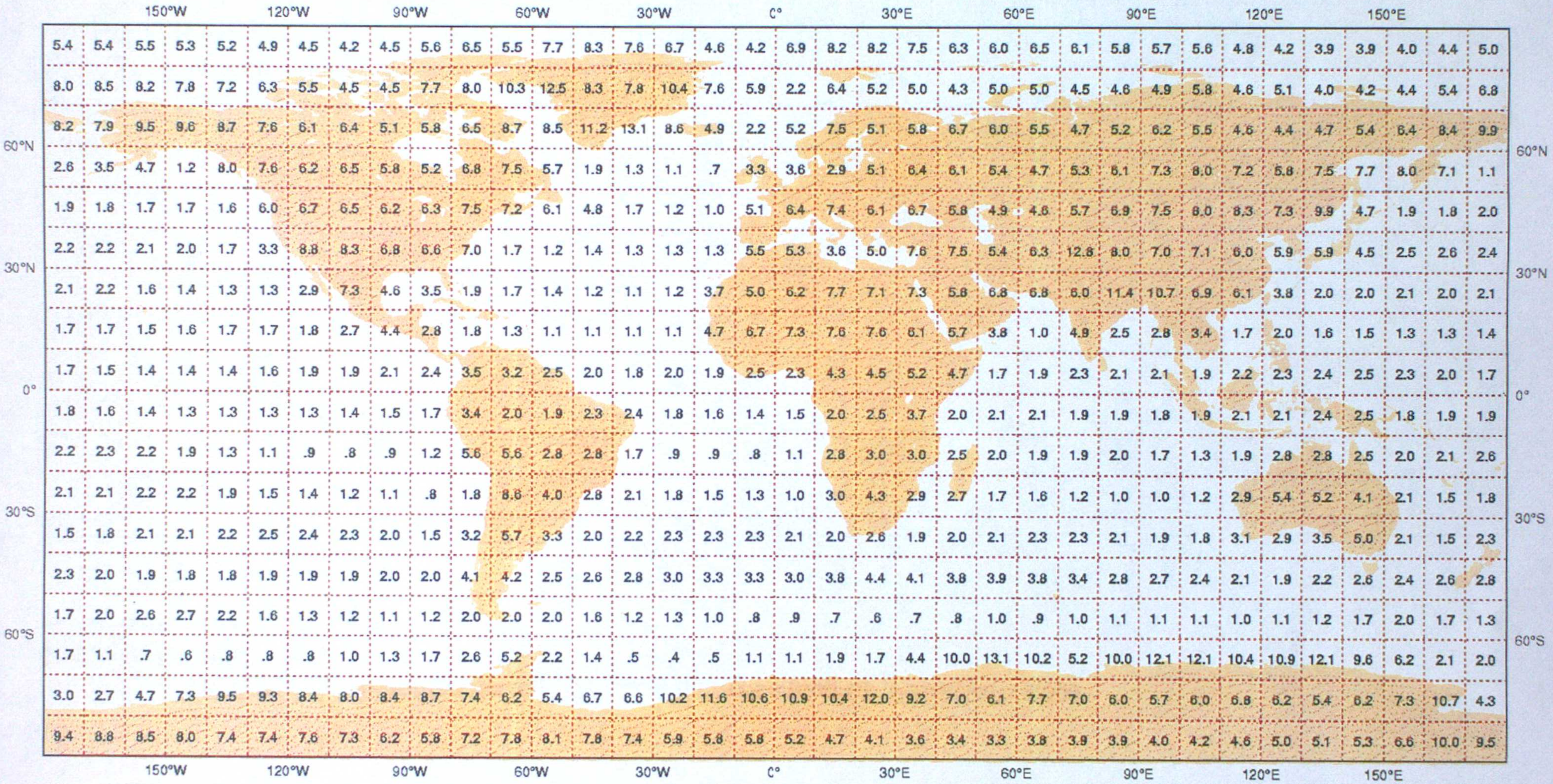
477	483	488	490	485	486	489	483	435	346	248	340	381	378	326	372	440	494	489	494	494	497	498	488	487	487	491	463	486	481	480	489	488	492	493	480
1282	1305	1316	1341	1353	1299	1173	1255	1106	754	977	1134	1061	873	947	1206	1365	1380	1378	1365	1348	1347	1339	1302	1343	1360	1325	1231	1143	1259	1313	1339	1305	1328	1320	1305
1007	1025	1074	1101	1140	1133	1095	1103	1066	1067	1051	1030	1114	977	1081	1191	1207	1212	1205	1156	1085	1081	1114	1118	1139	1216	1219	1018	1155	1186	1127	931	1001	981	904	968
968	971	1023	1101	1136	1145	1155	1146	1145	1143	1110	1102	1149	1114	1112	1107	1110	1115	1097	1086	1038	1003	1029	1064	1129	1166	1162	1161	1145	1089	1119	1073	1123	1104	1060	1029
918	914	952	1040	1094	1149	1161	1159	1123	1096	1125	1164	1131	1085	1109	1114	1094	1098	1057	1023	983	986	1097	1109	1121	1155	1119	1033	1062	1112	1140	1107	1095	1059	957	895
921	996	1021	1024	1099	1125	1121	1152	1097	1111	1139	1161	1149	1038	1077	1087	1047	1105	1021	1009	964	962	1126	1088	1092	1130	1130	1168	1122	1130	1099	1029	1084	1041	921	909
844	1017	1105	1038	1096	1076	1084	1145	1066	1130	1130	1147	1138	1008	1062	1087	1028	1104	1011	978	954	971	1083	1081	1085	1111	1115	1159	1130	1151	1153	1031	1099	1053	926	950
856	1028	1060	1046	1137	1095	1136	1128	1040	1144	1124	1095	1109	1085	1062	1085	1025	1081	1006	950	935	1014	1092	1090	1085	1111	1115	1137	1120	1136	1121	1039	1093	1033	922	977
818	987	1103	1059	1118	1091	1110	1119	1071	1126	1115	1133	1160	1092	1044	1095	1048	1037	1024	943	953	1082	1117	1147	1090	1096	1156	1151	1139	1155	1126	1090	1085	1023	966	965
903	991	1072	1063	1114	1124	1138	1095	1097	1136	1139	1138	1117	1106	1042	1067	1055	989	1054	930	962	1130	1083	1161	1099	1056	1147	1123	1126	1128	1101	1105	1071	1008	1008	968
946	942	1046	1118	1124	1165	1131	1088	1103	1129	1163	1137	1131	1135	1046	1033	1076	980	1014	893	984	1131	1054	1153	1101	1062	1151	1107	1172	1150	1087	1132	1076	1007	1061	964
984	941	1030	1150	1123	1182	1139	1083	1132	1103	1160	1155	1111	1152	1056	1017	1095	970	968	932	1026	1129	1064	1156	1141	1071	1135	1120	1159	1142	1113	1147	1049	1011	1074	969
1009	946	998	1152	1130	1150	1113	1091	1153	1140	1158	1161	1134	1164	1065	1020	1063	979	946	960	1054	1129	1117	1156	1147	1096	1096	1134	1165	1143	1123	1127	1056	1042	1069	988
1019	971	991	1101	1148	1152	1116	1089	1137	1155	1178	1157	1133	1147	1094	1025	1028	974	941	1006	1079	1116	1160	1183	1176	1148	1145	1171	1183	1173	1173	1127	1064	1076	1082	1038
1090	1032	1020	1110	1170	1173	1146	1145	1176	1196	1197	1196	1180	1171	1130	1080	1038	996	996	1074	1156	1171	1174	1190	1196	1181	1164	1160	1175	1185	1169	1120	1097	1110	1116	1104
1169	1148	1146	1159	1183	1202	1222	1247	1268	1282	1271	1243	1265	1256	1222	1160	1115	1090	1121	1170	1210	1236	1230	1236	1240	1238	1240	1227	1215	1211	1204	1184	1194	1193	1192	1180
1352	1309	1277	1274	1243	1201	1249	1310	1288	1302	1313	1278	1318	1336	1305	1216	1207	1066	956	900	948	950	788	972	1197	1202	1127	776	952	1003	1013	1211	1175	1181	1351	1346
450	464	455	454	458	462	455	409	419	479	490	474	470	473	458	437	441	426	424	397	419	405	344	287	273	289	344	403	453	452	463	463	419	451	461	451

Figure 26. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS8 (Surface)
NOAA15, using all observations



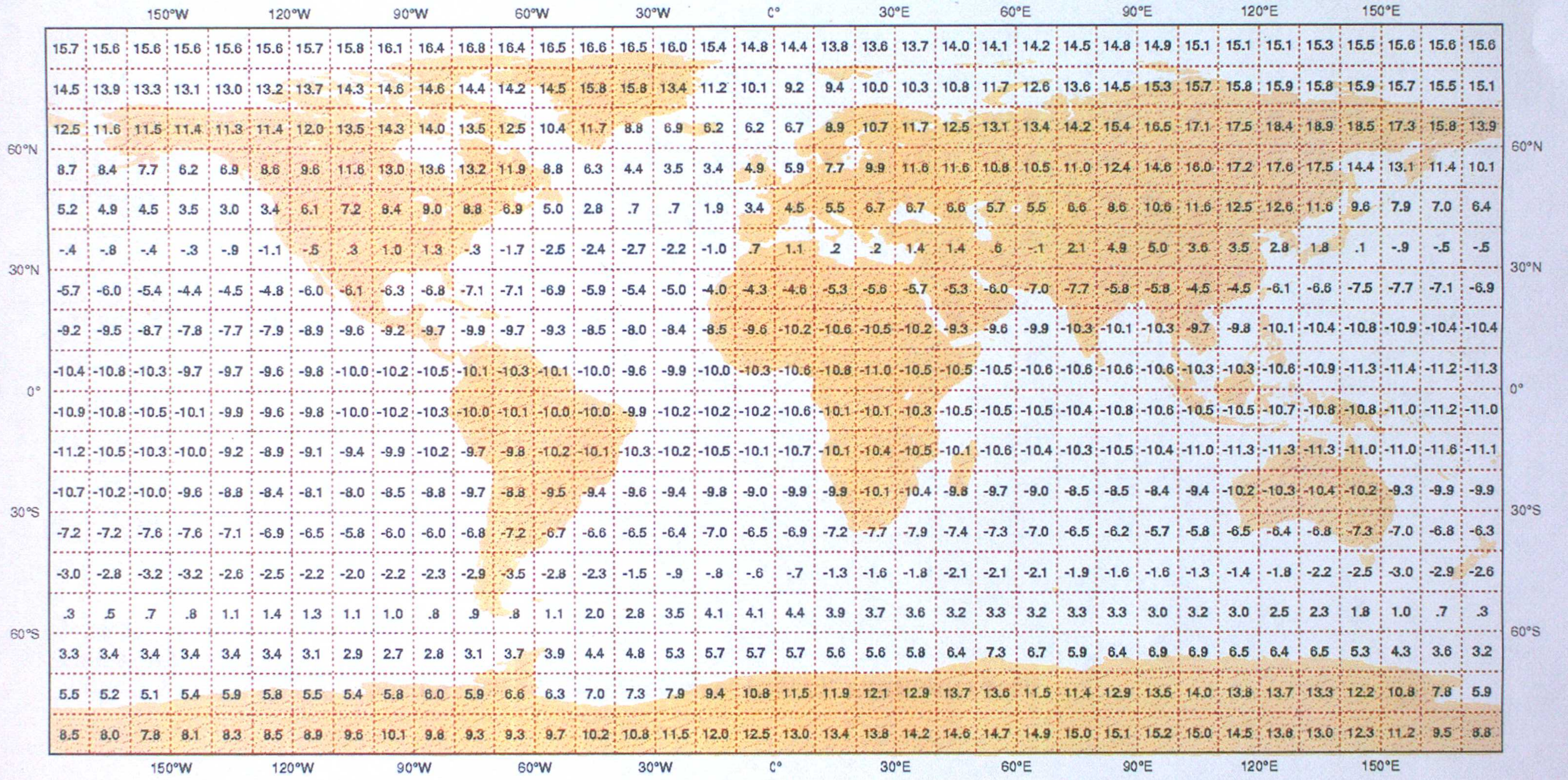
18.3	18.8	19.2	19.2	19.3	19.4	19.9	20.5	21.5	22.6	24.5	23.3	26.1	26.9	27.0	23.8	20.8	18.0	15.3	12.0	11.6	12.2	13.3	12.7	12.9	13.7	14.1	13.6	13.5	12.8	12.7	14.0	16.1	16.9	16.6	17.3
16.0	15.6	14.6	14.1	13.8	14.3	16.4	18.4	18.8	19.5	19.3	21.1	24.8	29.7	31.2	23.2	9.2	2.6	-2.6	-1.5	-.1	-.4	.2	3.4	7.3	10.5	13.8	16.4	17.2	17.1	17.3	15.7	16.7	16.9	16.7	17.0
8.8	7.4	10.4	13.4	12.8	11.9	11.7	15.4	18.0	15.6	14.7	12.8	3.9	16.4	3.9	-2.2	-4.2	-6.3	-5.9	1.8	6.7	7.2	7.6	11.0	12.1	13.2	16.1	20.4	21.2	22.0	25.6	30.5	28.0	23.8	20.5	13.5
-3.3	-2.5	-3.4	-6.2	-3.2	6.4	7.6	12.3	13.8	13.1	13.9	13.3	.0	-5.9	-8.0	-10.4	-11.5	-7.4	-5.0	-.8	4.1	9.4	9.5	8.0	7.4	8.9	11.8	16.6	17.7	21.8	21.4	22.5	5.3	3.6	.0	-3.8
-7.5	-7.7	-8.6	-9.6	-10.4	-6.8	4.3	4.9	5.7	3.6	4.9	-2.0	-5.5	-10.4	-14.1	-13.8	-13.5	-8.2	-4.8	-3.4	-.1	-2.0	1.9	-1.6	-1.4	4.4	11.4	16.7	14.7	13.9	10.9	5.5	-.8	-4.5	-5.4	-6.5
-14.5	-14.4	-15.0	-15.6	-16.0	-14.2	-6.8	-3.9	-5.9	-5.6	-13.7	-18.0	-18.5	-18.4	-17.9	-17.3	-16.4	-9.4	-9.6	-14.0	-13.7	-8.5	-4.8	-6.5	-6.6	.8	9.5	10.6	2.6	-1.7	-7.8	-11.3	-14.0	-14.5	-14.5	-14.9
-21.7	-21.1	-20.9	-20.4	-19.4	-18.9	-18.9	-15.6	-20.2	-21.7	-22.1	-22.2	-22.4	-21.8	-21.3	-20.7	-17.3	-12.8	-12.1	-14.6	-16.8	-17.5	-14.8	-18.9	-21.2	-22.6	-16.3	-15.1	-10.9	-12.7	-19.0	-20.5	-21.3	-21.7	-21.7	-21.9
-23.7	-23.4	-22.9	-22.4	-21.5	-21.8	-23.4	-24.8	-22.8	-23.2	-24.5	-24.5	-24.4	-23.8	-23.2	-22.8	-22.3	-22.6	-24.0	-24.7	-25.1	-23.5	-21.1	-24.2	-26.7	-25.8	-26.3	-25.6	-22.5	-22.7	-23.4	-24.4	-25.0	-25.2	-25.1	-24.6
-23.6	-23.6	-23.3	-23.0	-22.7	-22.5	-22.7	-22.9	-23.0	-22.9	-21.2	-22.5	-22.3	-22.9	-22.6	-22.6	-22.6	-23.2	-24.2	-24.5	-25.5	-22.3	-24.5	-24.6	-25.4	-25.1	-23.5	-23.3	-22.3	-21.8	-22.1	-23.5	-24.4	-24.5	-24.5	-24.2
-23.5	-24.2	-24.1	-23.8	-23.5	-23.2	-23.0	-22.7	-22.3	-21.6	-19.7	-20.8	-20.6	-22.0	-23.7	-23.8	-23.5	-23.1	-23.2	-21.6	-21.4	-21.4	-24.6	-23.1	-22.6	-22.8	-23.0	-22.9	-22.3	-21.9	-22.3	-21.8	-21.3	-21.9	-22.3	-22.9
-21.9	-22.0	-23.3	-24.4	-25.0	-24.7	-24.4	-23.8	-23.3	-22.7	-18.4	-18.8	-21.7	-21.8	-25.7	-25.1	-24.3	-23.6	-23.2	-20.7	-21.3	-22.2	-22.3	-23.0	-23.2	-23.6	-23.3	-23.7	-24.9	-25.1	-25.1	-24.9	-24.2	-24.0	-23.8	-22.9
-23.1	-22.1	-22.4	-22.8	-23.6	-24.1	-24.0	-23.7	-23.0	-22.0	-21.8	-17.8	-23.3	-22.3	-23.9	-24.2	-23.5	-23.0	-22.1	-21.3	-21.0	-23.6	-24.3	-24.1	-23.8	-23.6	-23.0	-22.3	-22.4	-23.3	-23.6	-24.7	-25.9	-24.3	-23.6	-23.5
-20.6	-19.8	-20.3	-19.9	-19.2	-19.3	-19.7	-20.1	-20.3	-19.8	-18.4	-20.0	-21.0	-20.9	-19.9	-19.8	-20.1	-19.7	-19.4	-20.2	-20.4	-21.2	-20.8	-20.5	-20.7	-20.5	-19.8	-18.8	-18.2	-19.0	-18.7	-19.3	-21.1	-21.6	-21.1	-20.6
-15.8	-15.2	-14.4	-13.7	-13.2	-13.1	-13.0	-13.1	-13.7	-14.3	-13.3	-15.3	-14.1	-13.8	-12.0	-11.5	-10.8	-10.2	-9.9	-10.5	-11.0	-11.4	-10.6	-11.1	-11.5	-11.4	-11.3	-10.7	-10.8	-11.3	-11.9	-13.0	-14.0	-15.2	-15.0	-14.6
-9.6	-8.9	-7.5	-6.9	-7.3	-7.8	-8.1	-8.8	-9.1	-9.4	-9.5	-9.3	-7.6	-5.7	-4.3	-3.9	-3.5	-3.2	-3.3	-3.5	-3.7	-4.1	-3.8	-4.1	-4.3	-3.8	-4.3	-4.8	-4.9	-5.7	-6.8	-7.2	-6.9	-7.9	-9.3	-9.5
-3.4	-2.7	-2.3	-2.3	-2.7	-3.6	-4.5	-5.0	-4.9	-4.8	-4.2	-.8	-.5	-.7	-1.4	-1.5	-1.8	-2.1	-2.1	-2.0	-2.2	-1.3	2.3	6.9	3.3	.0	4.8	7.2	7.4	5.1	4.3	5.6	2.8	.2	-2.8	-3.6
.3	.7	2.3	4.8	7.6	7.1	6.1	5.8	8.1	9.1	7.7	10.3	5.6	7.1	6.8	7.7	14.8	21.6	24.7	27.3	28.3	32.0	35.6	34.9	26.0	25.4	31.4	34.6	37.2	36.9	37.5	37.0	34.0	28.8	12.0	.9
13.6	12.1	11.8	15.1	17.2	18.1	19.0	21.5	23.9	23.6	20.7	20.0	22.0	23.6	26.5	29.3	30.6	32.4	34.2	35.7	36.8	38.1	39.9	40.8	41.4	42.2	42.8	42.7	42.1	40.6	38.2	35.3	32.8	27.9	18.5	14.9

Figure 27. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS8 (Surface)
NOAA15, using all observations



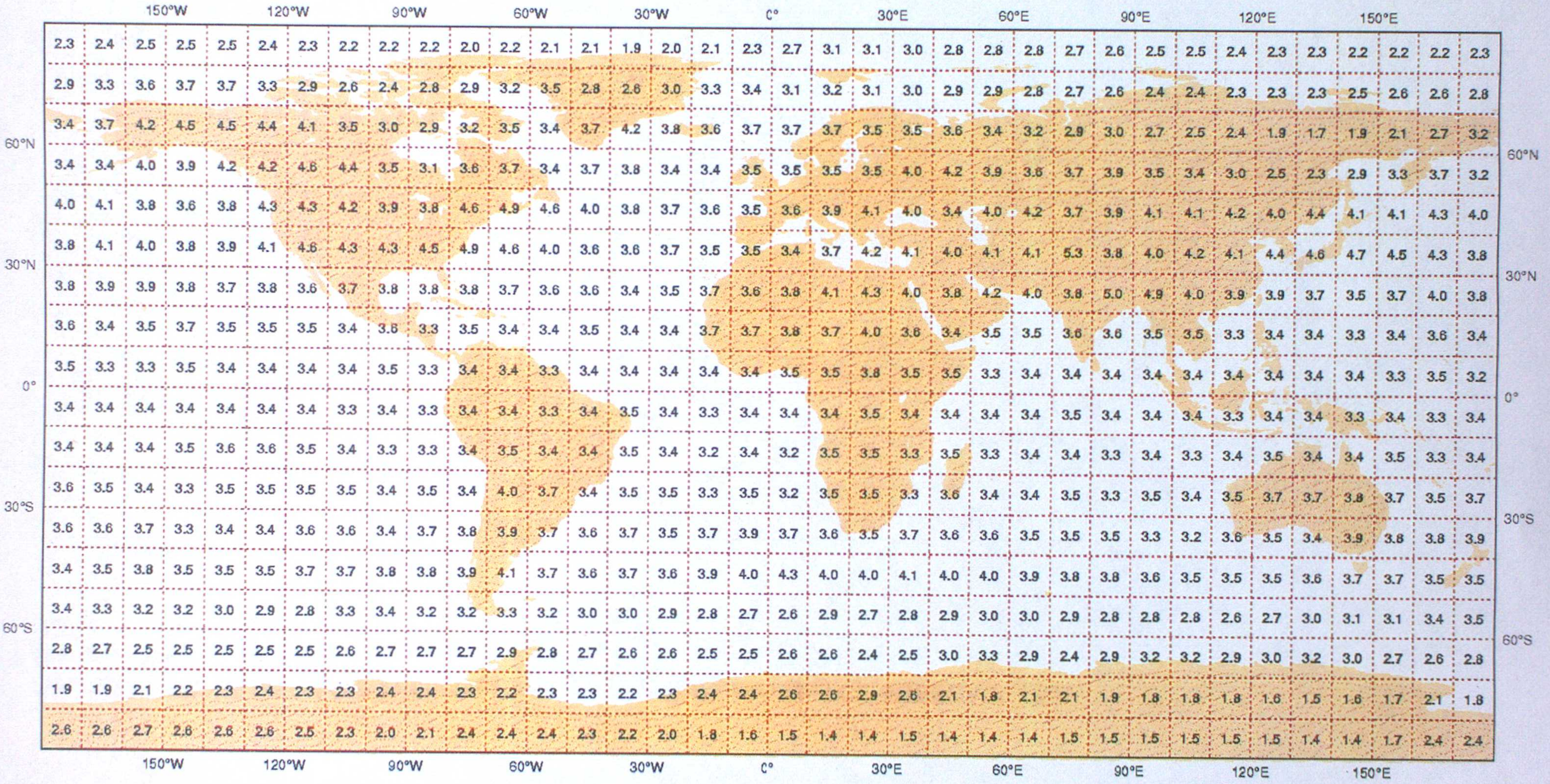
5.4	5.4	5.5	5.3	5.2	4.9	4.5	4.2	4.5	5.6	6.5	5.5	7.7	8.3	7.6	6.7	4.6	4.2	6.9	8.2	8.2	7.5	6.3	6.0	6.5	6.1	5.8	5.7	5.6	4.8	4.2	3.9	3.9	4.0	4.4	5.0
8.0	8.5	8.2	7.8	7.2	6.3	5.5	4.5	4.5	7.7	8.0	10.3	12.5	8.3	7.8	10.4	7.6	5.9	2.2	6.4	5.2	5.0	4.3	5.0	5.0	4.5	4.6	4.9	5.8	4.6	5.1	4.0	4.2	4.4	5.4	6.8
8.2	7.9	9.5	9.6	8.7	7.6	6.1	6.4	5.1	5.8	6.5	8.7	8.5	11.2	13.1	8.6	4.9	2.2	5.2	7.5	5.1	5.8	6.7	6.0	5.5	4.7	5.2	6.2	5.5	4.6	4.4	4.7	5.4	6.4	8.4	9.9
2.6	3.5	4.7	1.2	8.0	7.6	6.2	6.5	5.8	5.2	6.8	7.5	5.7	1.9	1.3	1.1	.7	3.3	3.6	2.9	5.1	6.4	6.1	5.4	4.7	5.3	6.1	7.3	8.0	7.2	5.8	7.5	7.7	8.0	7.1	1.1
1.9	1.8	1.7	1.7	1.6	6.0	6.7	6.5	6.2	6.3	7.5	7.2	6.1	4.8	1.7	1.2	1.0	5.1	6.4	7.4	6.1	6.7	5.8	4.9	4.6	5.7	6.9	7.5	8.0	8.3	7.3	9.9	4.7	1.9	1.8	2.0
2.2	2.2	2.1	2.0	1.7	3.3	8.8	8.3	6.8	6.6	7.0	1.7	1.2	1.4	1.3	1.3	1.3	5.5	5.3	3.6	5.0	7.6	7.5	5.4	6.3	12.8	8.0	7.0	7.1	6.0	5.9	5.9	4.5	2.5	2.6	2.4
2.1	2.2	1.6	1.4	1.3	1.3	2.9	7.3	4.6	3.5	1.9	1.7	1.4	1.2	1.1	1.2	3.7	5.0	6.2	7.7	7.1	7.3	5.8	6.8	6.8	6.0	11.4	10.7	6.9	6.1	3.8	2.0	2.0	2.1	2.0	2.1
1.7	1.7	1.5	1.6	1.7	1.7	1.8	2.7	4.4	2.8	1.8	1.3	1.1	1.1	1.1	1.1	4.7	6.7	7.3	7.6	7.6	6.1	5.7	3.8	1.0	4.9	2.5	2.8	3.4	1.7	2.0	1.6	1.5	1.3	1.3	1.4
1.7	1.5	1.4	1.4	1.4	1.6	1.9	1.9	2.1	2.4	3.5	3.2	2.5	2.0	1.8	2.0	1.9	2.5	2.3	4.3	4.5	5.2	4.7	1.7	1.9	2.3	2.1	2.1	1.9	2.2	2.3	2.4	2.5	2.3	2.0	1.7
1.8	1.6	1.4	1.3	1.3	1.3	1.3	1.4	1.5	1.7	3.4	2.0	1.9	2.3	2.4	1.8	1.6	1.4	1.5	2.0	2.5	3.7	2.0	2.1	2.1	1.9	1.9	1.8	1.9	2.1	2.1	2.4	2.5	1.8	1.9	1.9
2.2	2.3	2.2	1.9	1.3	1.1	.9	.8	.9	1.2	5.6	5.6	2.8	2.8	1.7	.9	.9	.8	1.1	2.8	3.0	3.0	2.5	2.0	1.9	1.9	2.0	1.7	1.3	1.9	2.8	2.8	2.5	2.0	2.1	2.6
2.1	2.1	2.2	2.2	1.9	1.5	1.4	1.2	1.1	.8	1.8	8.6	4.0	2.8	2.1	1.8	1.5	1.3	1.0	3.0	4.3	2.9	2.7	1.7	1.6	1.2	1.0	1.0	1.2	2.9	5.4	5.2	4.1	2.1	1.5	1.8
1.5	1.8	2.1	2.1	2.2	2.5	2.4	2.3	2.0	1.5	3.2	5.7	3.3	2.0	2.2	2.3	2.3	2.3	2.1	2.0	2.6	1.9	2.0	2.1	2.3	2.3	2.1	1.9	1.8	3.1	2.9	3.5	5.0	2.1	1.5	2.3
2.3	2.0	1.9	1.8	1.8	1.9	1.9	1.9	2.0	2.0	4.1	4.2	2.5	2.6	2.8	3.0	3.3	3.3	3.0	3.8	4.4	4.1	3.8	3.9	3.8	3.4	2.8	2.7	2.4	2.1	1.9	2.2	2.6	2.4	2.6	2.8
1.7	2.0	2.6	2.7	2.2	1.6	1.3	1.2	1.1	1.2	2.0	2.0	2.0	1.6	1.2	1.3	1.0	.8	.9	.7	.6	.7	.8	1.0	.9	1.0	1.1	1.1	1.1	1.0	1.1	1.2	1.7	2.0	1.7	1.3
1.7	1.1	.7	.6	.8	.8	.8	1.0	1.3	1.7	2.6	5.2	2.2	1.4	.5	.4	.5	1.1	1.1	1.9	1.7	4.4	10.0	13.1	10.2	5.2	10.0	12.1	12.1	10.4	10.9	12.1	9.6	6.2	2.1	2.0
3.0	2.7	4.7	7.3	9.5	9.3	8.4	8.0	8.4	8.7	7.4	6.2	5.4	6.7	6.6	10.2	11.6	10.6	10.9	10.4	12.0	9.2	7.0	6.1	7.7	7.0	6.0	5.7	6.0	6.8	6.2	5.4	6.2	7.3	10.7	4.3
9.4	8.8	8.5	8.0	7.4	7.4	7.6	7.3	6.2	5.8	7.2	7.8	8.1	7.8	7.4	5.9	5.8	5.8	5.2	4.7	4.1	3.6	3.4	3.3	3.8	3.9	3.9	4.0	4.2	4.6	5.0	5.1	5.3	6.6	10.0	9.5

Figure 28. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS15 (700 hPa)
NOAA15, using all observations



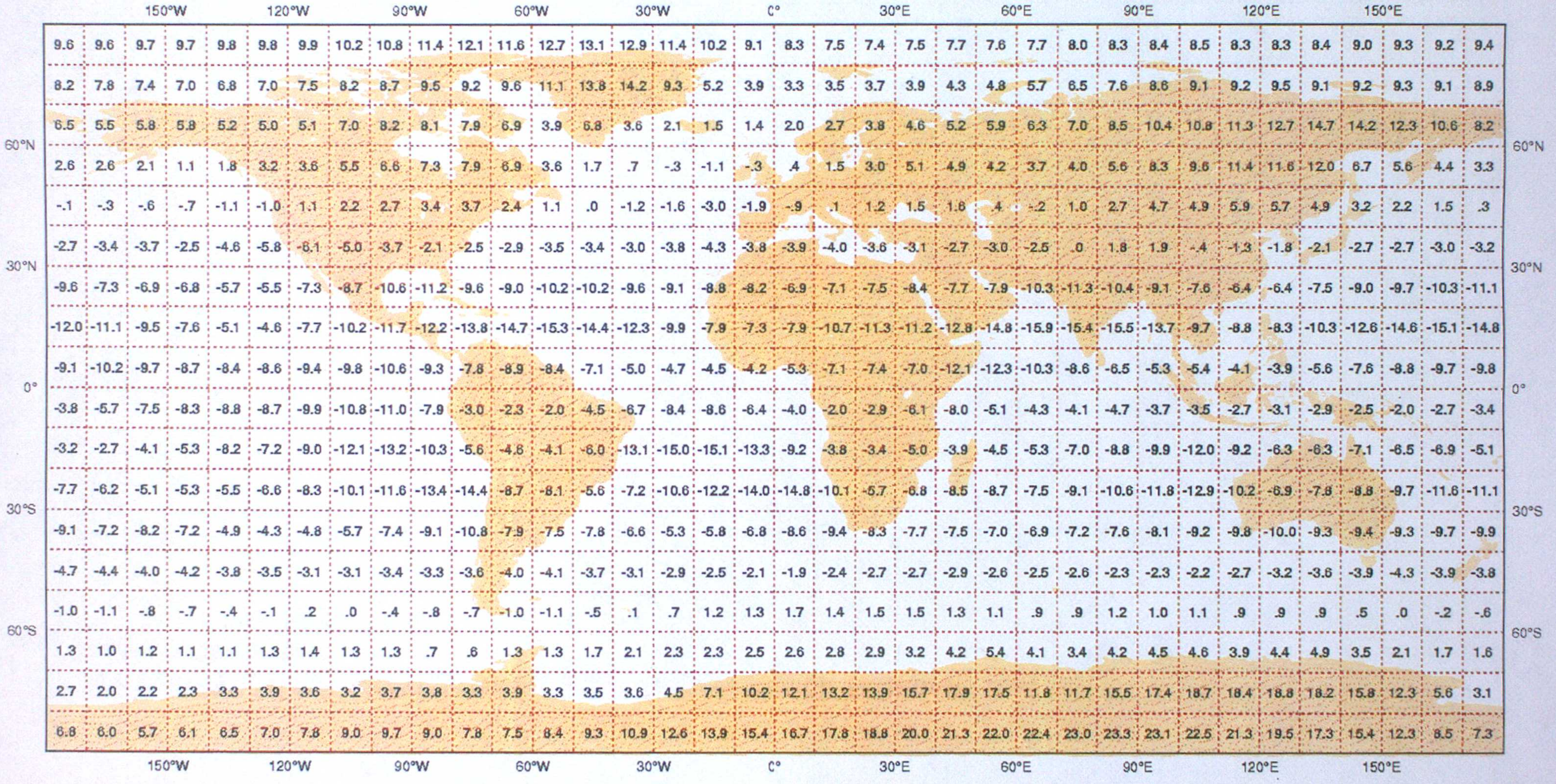
15.7	15.6	15.6	15.6	15.6	15.6	15.7	15.8	16.1	16.4	16.8	16.4	16.5	16.6	16.5	16.0	15.4	14.8	14.4	13.8	13.6	13.7	14.0	14.1	14.2	14.5	14.8	14.9	15.1	15.1	15.1	15.3	15.5	15.6	15.6	15.6
14.5	13.9	13.3	13.1	13.0	13.2	13.7	14.3	14.6	14.6	14.4	14.2	14.5	15.8	15.8	13.4	11.2	10.1	9.2	9.4	10.0	10.3	10.8	11.7	12.6	13.6	14.5	15.3	15.7	15.8	15.9	15.8	15.9	15.7	15.5	15.1
12.5	11.6	11.5	11.4	11.3	11.4	12.0	13.5	14.3	14.0	13.5	12.5	10.4	11.7	8.8	6.9	6.2	6.2	6.7	8.9	10.7	11.7	12.5	13.1	13.4	14.2	15.4	16.5	17.1	17.5	18.4	18.9	18.5	17.3	15.8	13.9
8.7	8.4	7.7	6.2	6.9	8.6	9.6	11.6	13.0	13.6	13.2	11.9	8.8	6.3	4.4	3.5	3.4	4.9	5.9	7.7	9.9	11.6	11.6	10.8	10.5	11.0	12.4	14.6	16.0	17.2	17.6	17.5	14.4	13.1	11.4	10.1
5.2	4.9	4.5	3.5	3.0	3.4	6.1	7.2	8.4	9.0	8.8	6.9	5.0	2.8	.7	.7	1.9	3.4	4.5	5.5	6.7	6.7	6.6	5.7	5.5	6.6	8.6	10.6	11.6	12.5	12.6	11.6	9.6	7.9	7.0	6.4
-.4	-.8	-.4	-.3	-.9	-1.1	-.5	.3	1.0	1.3	-.3	-1.7	-2.5	-2.4	-2.7	-2.2	-1.0	.7	1.1	.2	.2	1.4	1.4	.6	-.1	2.1	4.9	5.0	3.6	3.5	2.8	1.8	.1	-.9	-.5	-.5
-5.7	-6.0	-5.4	-4.4	-4.5	-4.8	-6.0	-6.1	-6.3	-6.8	-7.1	-7.1	-6.9	-5.9	-5.4	-5.0	-4.0	-4.3	-4.6	-5.3	-5.6	-5.7	-5.3	-6.0	-7.0	-7.7	-5.8	-5.8	-4.5	-4.5	-6.1	-6.6	-7.5	-7.7	-7.1	-6.9
-9.2	-9.5	-8.7	-7.8	-7.7	-7.9	-8.9	-9.6	-9.2	-9.7	-9.9	-9.7	-9.3	-8.5	-8.0	-8.4	-8.5	-9.6	-10.2	-10.6	-10.5	-10.2	-9.3	-9.6	-9.9	-10.3	-10.1	-10.3	-9.7	-9.8	-10.1	-10.4	-10.8	-10.9	-10.4	-10.4
-10.4	-10.8	-10.3	-9.7	-9.7	-9.6	-9.8	-10.0	-10.2	-10.5	-10.1	-10.3	-10.1	-10.0	-9.6	-9.9	-10.0	-10.3	-10.6	-10.8	-11.0	-10.5	-10.5	-10.5	-10.6	-10.6	-10.6	-10.6	-10.3	-10.3	-10.6	-10.9	-11.3	-11.4	-11.2	-11.3
-10.9	-10.8	-10.5	-10.1	-9.9	-9.6	-9.8	-10.0	-10.2	-10.3	-10.0	-10.1	-10.0	-10.0	-9.9	-10.2	-10.2	-10.2	-10.6	-10.1	-10.1	-10.3	-10.5	-10.5	-10.5	-10.4	-10.8	-10.6	-10.5	-10.5	-10.7	-10.8	-10.8	-11.0	-11.2	-11.0
-11.2	-10.5	-10.3	-10.0	-9.2	-8.9	-9.1	-9.4	-9.9	-10.2	-9.7	-9.8	-10.2	-10.1	-10.3	-10.2	-10.5	-10.1	-10.7	-10.1	-10.4	-10.5	-10.1	-10.6	-10.4	-10.3	-10.5	-10.4	-11.0	-11.3	-11.3	-11.3	-11.0	-11.0	-11.6	-11.1
-10.7	-10.2	-10.0	-9.6	-8.8	-8.4	-8.1	-8.0	-8.5	-8.8	-9.7	-8.8	-9.5	-9.4	-9.6	-9.4	-9.8	-9.0	-9.9	-9.9	-10.1	-10.4	-9.8	-9.7	-9.0	-8.5	-8.5	-8.4	-9.4	-10.2	-10.3	-10.4	-10.2	-9.3	-9.9	-9.9
-7.2	-7.2	-7.6	-7.6	-7.1	-6.9	-6.5	-5.8	-6.0	-6.0	-6.8	-7.2	-6.7	-6.6	-6.5	-6.4	-7.0	-6.5	-6.9	-7.2	-7.7	-7.9	-7.4	-7.3	-7.0	-6.5	-6.2	-5.7	-5.8	-6.5	-6.4	-6.8	-7.3	-7.0	-6.8	-6.3
-3.0	-2.8	-3.2	-3.2	-2.6	-2.5	-2.2	-2.0	-2.2	-2.3	-2.9	-3.5	-2.8	-2.3	-1.5	-.9	-.8	-.6	-.7	-1.3	-1.6	-1.8	-2.1	-2.1	-2.1	-1.9	-1.6	-1.6	-1.3	-1.4	-1.8	-2.2	-2.5	-3.0	-2.9	-2.6
.3	.5	.7	.8	1.1	1.4	1.3	1.1	1.0	.8	.9	.8	1.1	2.0	2.8	3.5	4.1	4.1	4.4	3.9	3.7	3.6	3.2	3.3	3.2	3.3	3.3	3.0	3.2	3.0	2.5	2.3	1.8	1.0	.7	.3
3.3	3.4	3.4	3.4	3.4	3.4	3.1	2.9	2.7	2.8	3.1	3.7	3.9	4.4	4.8	5.3	5.7	5.7	5.7	5.6	5.6	5.8	6.4	7.3	6.7	5.9	6.4	6.9	6.9	6.5	6.4	6.5	5.3	4.3	3.6	3.2
5.5	5.2	5.1	5.4	5.9	5.8	5.5	5.4	5.8	6.0	5.9	6.6	6.3	7.0	7.3	7.9	9.4	10.8	11.5	11.9	12.1	12.9	13.7	13.6	11.5	11.4	12.9	13.5	14.0	13.8	13.7	13.3	12.2	10.8	7.8	5.9
8.5	8.0	7.8	8.1	8.3	8.5	8.9	9.6	10.1	9.8	9.3	9.3	9.7	10.2	10.8	11.5	12.0	12.5	13.0	13.4	13.8	14.2	14.6	14.7	14.9	15.0	15.1	15.2	15.0	14.5	13.8	13.0	12.3	11.2	9.5	8.8

Figure 29. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS15 (700 hPa)
NOAA15, using all observations



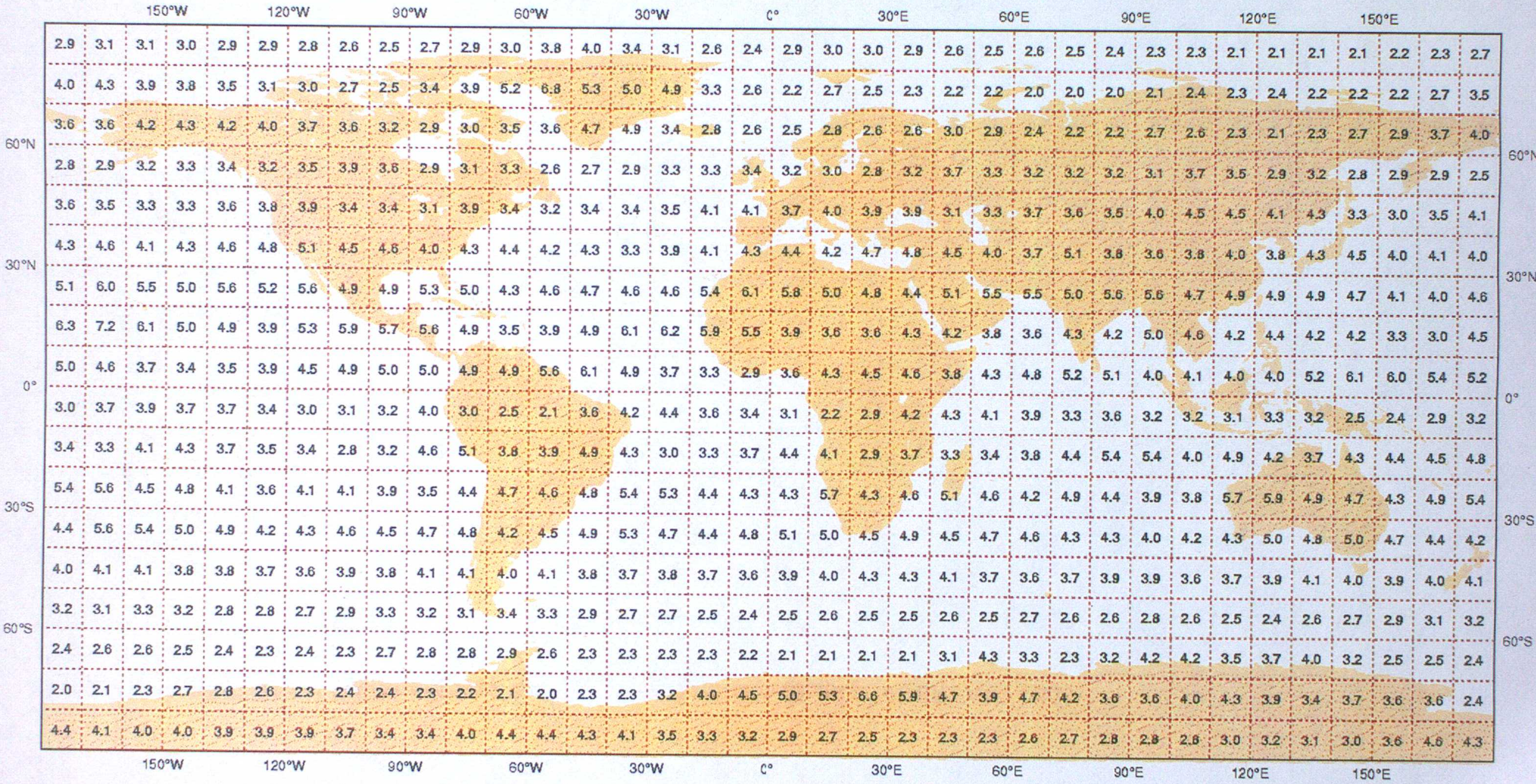
2.3	2.4	2.5	2.5	2.5	2.4	2.3	2.2	2.2	2.2	2.0	2.2	2.1	2.1	1.9	2.0	2.1	2.3	2.7	3.1	3.1	3.0	2.8	2.8	2.8	2.7	2.6	2.5	2.5	2.4	2.3	2.3	2.2	2.2	2.2	2.3
2.9	3.3	3.6	3.7	3.7	3.3	2.9	2.6	2.4	2.8	2.9	3.2	3.5	2.8	2.6	3.0	3.3	3.4	3.1	3.2	3.1	3.0	2.9	2.9	2.8	2.7	2.6	2.4	2.4	2.3	2.3	2.3	2.5	2.6	2.6	2.8
3.4	3.7	4.2	4.5	4.5	4.4	4.1	3.5	3.0	2.9	3.2	3.5	3.4	3.7	4.2	3.8	3.6	3.7	3.7	3.7	3.5	3.5	3.6	3.4	3.2	2.9	3.0	2.7	2.5	2.4	1.9	1.7	1.9	2.1	2.7	3.2
3.4	3.4	4.0	3.9	4.2	4.2	4.6	4.4	3.5	3.1	3.6	3.7	3.4	3.7	3.8	3.4	3.4	3.5	3.5	3.5	3.5	4.0	4.2	3.9	3.6	3.7	3.9	3.5	3.4	3.0	2.5	2.3	2.9	3.3	3.7	3.2
4.0	4.1	3.8	3.6	3.8	4.3	4.3	4.2	3.9	3.8	4.6	4.9	4.6	4.0	3.8	3.7	3.6	3.5	3.6	3.9	4.1	4.0	3.4	4.0	4.2	3.7	3.9	4.1	4.1	4.2	4.0	4.4	4.1	4.1	4.3	4.0
3.8	4.1	4.0	3.8	3.9	4.1	4.6	4.3	4.3	4.5	4.9	4.6	4.0	3.6	3.6	3.7	3.5	3.5	3.4	3.7	4.2	4.1	4.0	4.1	4.1	5.3	3.8	4.0	4.2	4.1	4.4	4.6	4.7	4.5	4.3	3.8
3.8	3.9	3.9	3.8	3.7	3.8	3.6	3.7	3.8	3.8	3.8	3.7	3.6	3.6	3.4	3.5	3.7	3.6	3.8	4.1	4.3	4.0	3.8	4.2	4.0	3.8	5.0	4.9	4.0	3.9	3.9	3.7	3.5	3.7	4.0	3.8
3.6	3.4	3.5	3.7	3.5	3.5	3.5	3.4	3.6	3.3	3.5	3.4	3.4	3.5	3.4	3.4	3.7	3.7	3.8	3.7	4.0	3.6	3.4	3.5	3.5	3.6	3.6	3.5	3.5	3.3	3.4	3.4	3.3	3.4	3.6	3.4
3.5	3.3	3.3	3.5	3.4	3.4	3.4	3.4	3.5	3.3	3.4	3.4	3.3	3.4	3.4	3.4	3.4	3.4	3.5	3.5	3.8	3.5	3.5	3.3	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.3	3.5	3.2
3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.3	3.4	3.3	3.4	3.4	3.3	3.4	3.5	3.4	3.3	3.4	3.4	3.4	3.5	3.4	3.4	3.4	3.4	3.5	3.4	3.4	3.4	3.3	3.4	3.4	3.3	3.4	3.3	3.4
3.4	3.4	3.4	3.5	3.6	3.6	3.5	3.4	3.3	3.3	3.4	3.5	3.4	3.4	3.5	3.4	3.2	3.4	3.2	3.5	3.5	3.3	3.5	3.3	3.4	3.4	3.3	3.4	3.3	3.4	3.5	3.4	3.4	3.5	3.3	3.4
3.6	3.5	3.4	3.3	3.5	3.5	3.5	3.5	3.4	3.5	3.4	4.0	3.7	3.4	3.5	3.5	3.3	3.5	3.2	3.5	3.5	3.3	3.6	3.4	3.4	3.5	3.3	3.5	3.4	3.5	3.7	3.7	3.8	3.7	3.5	3.7
3.6	3.6	3.7	3.3	3.4	3.4	3.6	3.6	3.4	3.7	3.8	3.9	3.7	3.6	3.7	3.5	3.7	3.9	3.7	3.6	3.5	3.7	3.6	3.6	3.5	3.5	3.5	3.3	3.2	3.6	3.5	3.4	3.9	3.8	3.8	3.9
3.4	3.5	3.8	3.5	3.5	3.5	3.7	3.7	3.8	3.8	3.9	4.1	3.7	3.6	3.7	3.6	3.9	4.0	4.3	4.0	4.0	4.1	4.0	4.0	3.9	3.8	3.8	3.6	3.5	3.5	3.5	3.6	3.7	3.7	3.5	3.5
3.4	3.3	3.2	3.2	3.0	2.9	2.8	3.3	3.4	3.2	3.2	3.3	3.2	3.0	3.0	2.9	2.8	2.7	2.6	2.9	2.7	2.8	2.9	3.0	3.0	2.9	2.8	2.8	2.8	2.6	2.7	3.0	3.1	3.1	3.4	3.5
2.8	2.7	2.5	2.5	2.5	2.5	2.5	2.6	2.7	2.7	2.7	2.9	2.8	2.7	2.6	2.6	2.5	2.5	2.6	2.6	2.4	2.5	3.0	3.3	2.9	2.4	2.9	3.2	3.2	2.9	3.0	3.2	3.0	2.7	2.6	2.8
1.9	1.9	2.1	2.2	2.3	2.4	2.3	2.3	2.4	2.4	2.3	2.2	2.3	2.3	2.2	2.3	2.4	2.4	2.6	2.6	2.9	2.6	2.1	1.8	2.1	2.1	1.9	1.8	1.8	1.8	1.6	1.5	1.6	1.7	2.1	1.8
2.6	2.6	2.7	2.6	2.6	2.6	2.5	2.3	2.0	2.1	2.4	2.4	2.4	2.3	2.2	2.0	1.8	1.6	1.5	1.4	1.4	1.5	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.7	2.4	2.4

Figure 30. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS11 (500 - 700 hPa)
NOAA15, using all observations



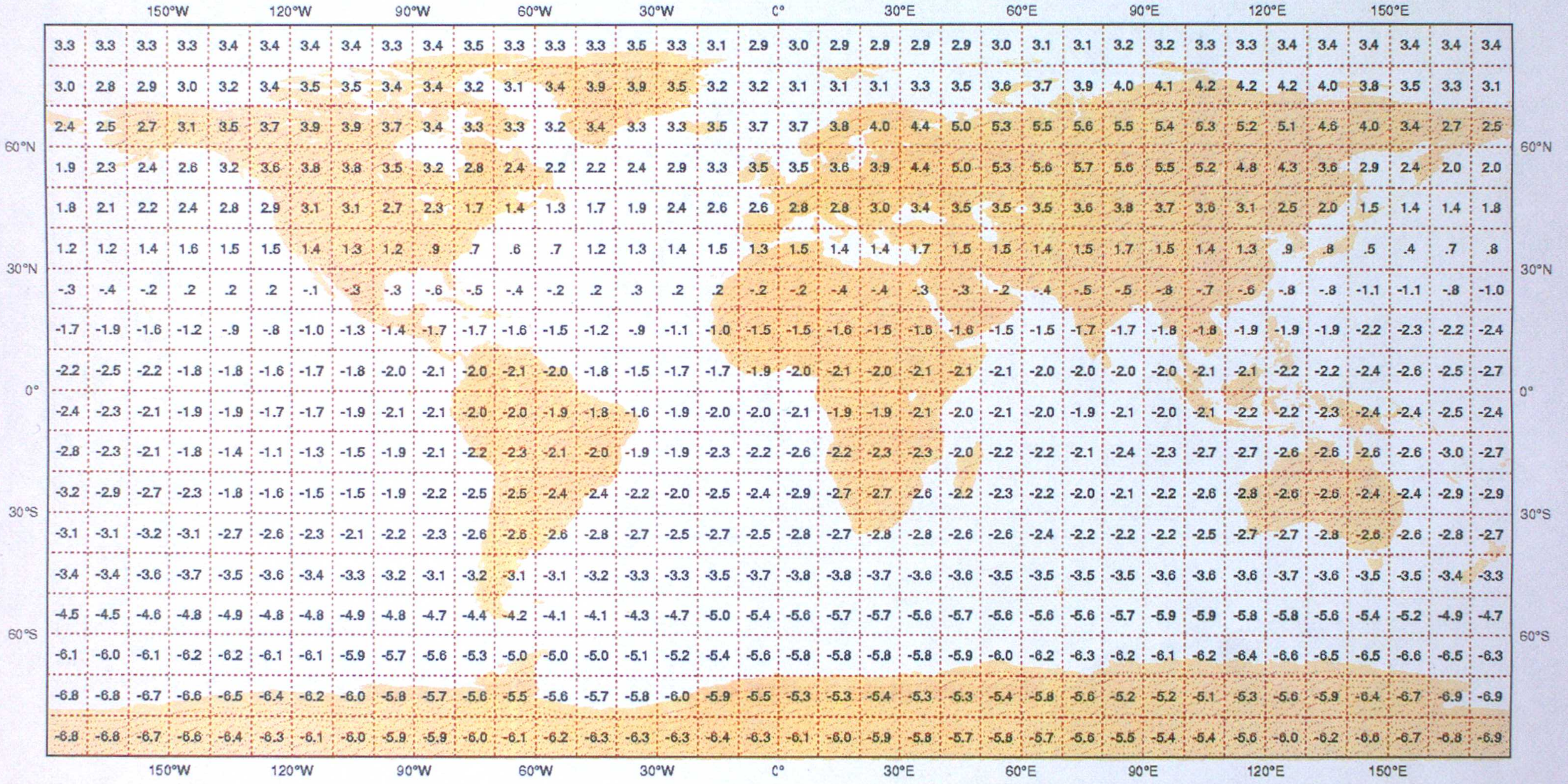
9.6	9.6	9.7	9.7	9.8	9.8	9.9	10.2	10.8	11.4	12.1	11.6	12.7	13.1	12.9	11.4	10.2	9.1	8.3	7.5	7.4	7.5	7.7	7.6	7.7	8.0	8.3	8.4	8.5	8.3	8.3	8.4	9.0	9.3	9.2	9.4
8.2	7.8	7.4	7.0	6.8	7.0	7.5	8.2	8.7	9.5	9.2	9.6	11.1	13.8	14.2	9.3	5.2	3.9	3.3	3.5	3.7	3.9	4.3	4.8	5.7	6.5	7.6	8.6	9.1	9.2	9.5	9.1	9.2	9.3	9.1	8.9
6.5	5.5	5.8	5.8	5.2	5.0	5.1	7.0	8.2	8.1	7.9	6.9	3.9	6.8	3.6	2.1	1.5	1.4	2.0	2.7	3.8	4.6	5.2	5.9	6.3	7.0	8.5	10.4	10.8	11.3	12.7	14.7	14.2	12.3	10.6	8.2
2.6	2.6	2.1	1.1	1.8	3.2	3.6	5.5	6.6	7.3	7.9	6.9	3.6	1.7	.7	-.3	-1.1	-.3	.4	1.5	3.0	5.1	4.9	4.2	3.7	4.0	5.6	8.3	9.6	11.4	11.6	12.0	6.7	5.6	4.4	3.3
-.1	-.3	-.6	-.7	-1.1	-1.0	1.1	2.2	2.7	3.4	3.7	2.4	1.1	.0	-1.2	-1.6	-3.0	-1.9	-.9	.1	1.2	1.5	1.6	.4	-.2	1.0	2.7	4.7	4.9	5.9	5.7	4.9	3.2	2.2	1.5	.3
-2.7	-3.4	-3.7	-2.5	-4.6	-5.8	-6.1	-5.0	-3.7	-2.1	-2.5	-2.9	-3.5	-3.4	-3.0	-3.8	-4.3	-3.8	-3.9	-4.0	-3.6	-3.1	-2.7	-3.0	-2.5	.0	1.8	1.9	-.4	-1.3	-1.8	-2.1	-2.7	-2.7	-3.0	-3.2
-9.6	-7.3	-6.9	-6.8	-5.7	-5.5	-7.3	-8.7	-10.6	-11.2	-9.6	-9.0	-10.2	-10.2	-9.6	-9.1	-8.8	-8.2	-6.9	-7.1	-7.5	-8.4	-7.7	-7.9	-10.3	-11.3	-10.4	-9.1	-7.6	-6.4	-6.4	-7.5	-9.0	-9.7	-10.3	-11.1
-12.0	-11.1	-9.5	-7.6	-5.1	-4.6	-7.7	-10.2	-11.7	-12.2	-13.8	-14.7	-15.3	-14.4	-12.3	-9.9	-7.9	-7.3	-7.9	-10.7	-11.3	-11.2	-12.8	-14.8	-15.9	-15.4	-15.5	-13.7	-9.7	-8.8	-8.3	-10.3	-12.6	-14.6	-15.1	-14.8
-9.1	-10.2	-9.7	-8.7	-8.4	-8.6	-9.4	-9.8	-10.6	-9.3	-7.8	-8.9	-8.4	-7.1	-5.0	-4.7	-4.5	-4.2	-5.3	-7.1	-7.4	-7.0	-12.1	-12.3	-10.3	-8.6	-6.5	-5.3	-5.4	-4.1	-3.9	-5.6	-7.6	-8.8	-9.7	-9.8
-3.8	-5.7	-7.5	-8.3	-8.8	-8.7	-9.9	-10.8	-11.0	-7.9	-3.0	-2.3	-2.0	-4.5	-6.7	-8.4	-8.6	-6.4	-4.0	-2.0	-2.9	-6.1	-8.0	-5.1	-4.3	-4.1	-4.7	-3.7	-3.5	-2.7	-3.1	-2.9	-2.5	-2.0	-2.7	-3.4
-3.2	-2.7	-4.1	-5.3	-8.2	-7.2	-9.0	-12.1	-13.2	-10.3	-5.6	-4.6	-4.1	-6.0	-13.1	-15.0	-15.1	-13.3	-9.2	-3.8	-3.4	-5.0	-3.9	-4.5	-5.3	-7.0	-8.8	-9.9	-12.0	-9.2	-6.3	-6.3	-7.1	-6.5	-6.9	-5.1
-7.7	-6.2	-5.1	-5.3	-5.5	-6.6	-8.3	-10.1	-11.6	-13.4	-14.4	-8.7	-8.1	-5.6	-7.2	-10.6	-12.2	-14.0	-14.8	-10.1	-5.7	-6.8	-8.5	-8.7	-7.5	-9.1	-10.6	-11.8	-12.9	-10.2	-6.9	-7.8	-8.8	-9.7	-11.6	-11.1
-9.1	-7.2	-8.2	-7.2	-4.9	-4.3	-4.8	-5.7	-7.4	-9.1	-10.8	-7.9	-7.5	-7.8	-6.6	-5.3	-5.8	-6.8	-8.6	-9.4	-8.3	-7.7	-7.5	-7.0	-6.9	-7.2	-7.6	-8.1	-9.2	-9.8	-10.0	-9.3	-9.4	-9.3	-9.7	-9.9
-4.7	-4.4	-4.0	-4.2	-3.8	-3.5	-3.1	-3.1	-3.4	-3.3	-3.6	-4.0	-4.1	-3.7	-3.1	-2.9	-2.5	-2.1	-1.9	-2.4	-2.7	-2.7	-2.9	-2.6	-2.5	-2.6	-2.3	-2.3	-2.2	-2.7	-3.2	-3.6	-3.9	-4.3	-3.9	-3.8
-1.0	-1.1	-.8	-.7	-.4	-.1	.2	.0	-.4	-.8	-.7	-1.0	-1.1	-.5	.1	.7	1.2	1.3	1.7	1.4	1.5	1.5	1.3	1.1	.9	.9	1.2	1.0	1.1	.9	.9	.9	.5	.0	-.2	-.6
1.3	1.0	1.2	1.1	1.1	1.3	1.4	1.3	1.3	.7	.6	1.3	1.3	1.7	2.1	2.3	2.3	2.5	2.6	2.8	2.9	3.2	4.2	5.4	4.1	3.4	4.2	4.5	4.6	3.9	4.4	4.9	3.5	2.1	1.7	1.6
2.7	2.0	2.2	2.3	3.3	3.9	3.6	3.2	3.7	3.8	3.3	3.9	3.3	3.5	3.6	4.5	7.1	10.2	12.1	13.2	13.9	15.7	17.9	17.5	11.8	11.7	15.5	17.4	18.7	18.4	18.8	18.2	15.8	12.3	5.6	3.1
6.8	6.0	5.7	6.1	6.5	7.0	7.8	9.0	9.7	9.0	7.8	7.5	8.4	9.3	10.9	12.6	13.9	15.4	16.7	17.8	18.8	20.0	21.3	22.0	22.4	23.0	23.3	23.1	22.5	21.3	19.5	17.3	15.4	12.3	8.5	7.3

Figure 31. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS11 (500 - 700 hPa)
NOAA15, using all observations



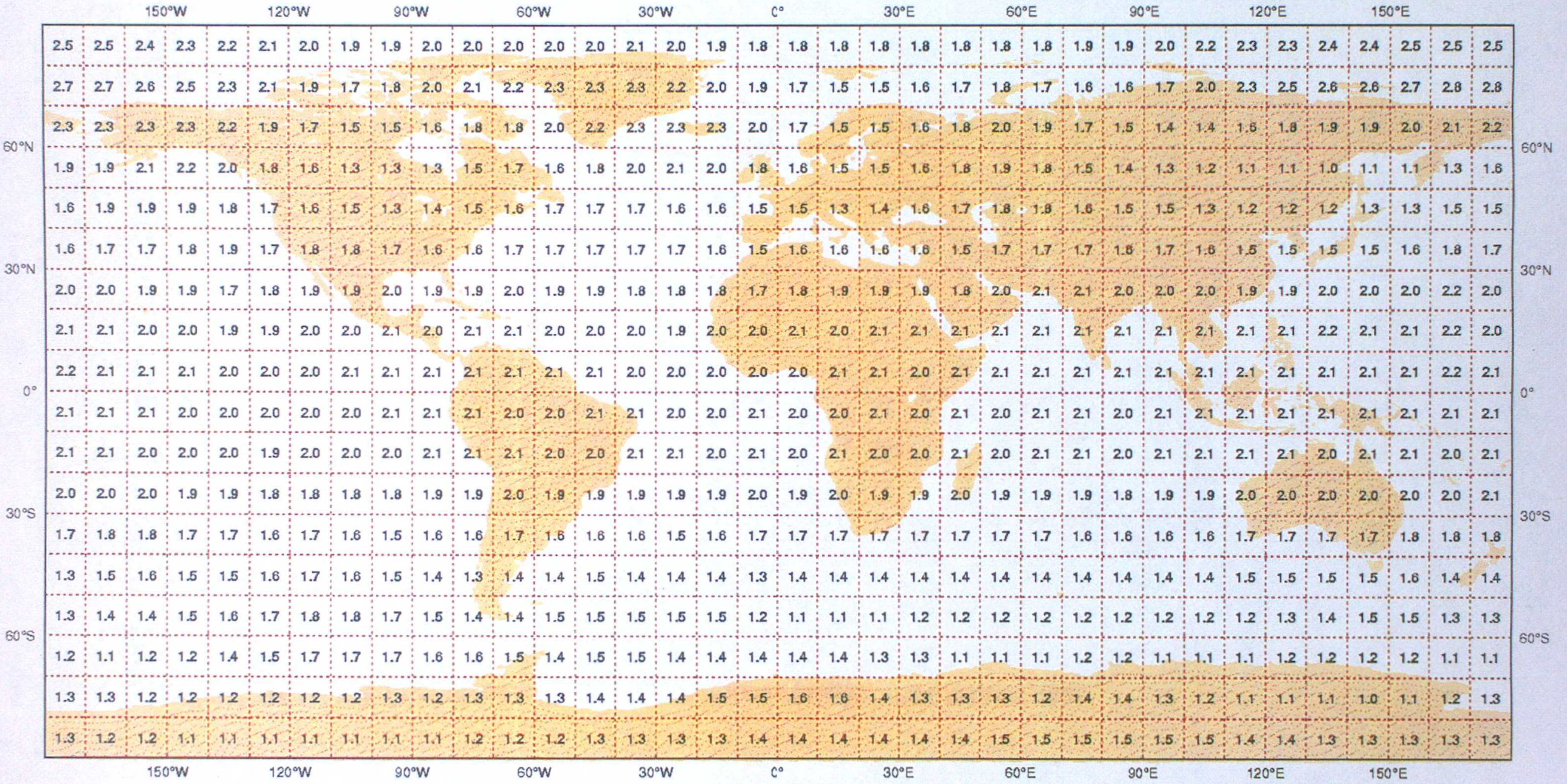
2.9	3.1	3.1	3.0	2.9	2.9	2.8	2.6	2.5	2.7	2.9	3.0	3.8	4.0	3.4	3.1	2.6	2.4	2.9	3.0	3.0	2.9	2.6	2.5	2.6	2.5	2.4	2.3	2.3	2.1	2.1	2.1	2.1	2.2	2.3	2.7
4.0	4.3	3.9	3.8	3.5	3.1	3.0	2.7	2.5	3.4	3.9	5.2	6.8	5.3	5.0	4.9	3.3	2.6	2.2	2.7	2.5	2.3	2.2	2.2	2.0	2.0	2.0	2.1	2.4	2.3	2.4	2.2	2.2	2.2	2.7	3.5
3.6	3.6	4.2	4.3	4.2	4.0	3.7	3.6	3.2	2.9	3.0	3.5	3.6	4.7	4.9	3.4	2.8	2.6	2.5	2.8	2.6	2.6	3.0	2.9	2.4	2.2	2.2	2.7	2.6	2.3	2.1	2.3	2.7	2.9	3.7	4.0
2.8	2.9	3.2	3.3	3.4	3.2	3.5	3.9	3.6	2.9	3.1	3.3	2.6	2.7	2.9	3.3	3.3	3.4	3.2	3.0	2.8	3.2	3.7	3.3	3.2	3.2	3.2	3.1	3.7	3.5	2.9	3.2	2.8	2.9	2.9	2.5
3.6	3.5	3.3	3.3	3.6	3.8	3.9	3.4	3.4	3.1	3.9	3.4	3.2	3.4	3.4	3.5	4.1	4.1	3.7	4.0	3.9	3.9	3.1	3.3	3.7	3.6	3.5	4.0	4.5	4.5	4.1	4.3	3.3	3.0	3.5	4.1
4.3	4.6	4.1	4.3	4.6	4.8	5.1	4.5	4.6	4.0	4.3	4.4	4.2	4.3	3.3	3.9	4.1	4.3	4.4	4.2	4.7	4.8	4.5	4.0	3.7	5.1	3.8	3.6	3.8	4.0	3.8	4.3	4.5	4.0	4.1	4.0
5.1	6.0	5.5	5.0	5.6	5.2	5.6	4.9	4.9	5.3	5.0	4.3	4.6	4.7	4.6	4.6	5.4	6.1	5.8	5.0	4.8	4.4	5.1	5.5	5.5	5.0	5.6	5.6	4.7	4.9	4.9	4.9	4.7	4.1	4.0	4.6
6.3	7.2	6.1	5.0	4.9	3.9	5.3	5.9	5.7	5.6	4.9	3.5	3.9	4.9	6.1	6.2	5.9	5.5	3.9	3.6	3.6	4.3	4.2	3.8	3.6	4.3	4.2	5.0	4.6	4.2	4.4	4.2	4.2	3.3	3.0	4.5
5.0	4.6	3.7	3.4	3.5	3.9	4.5	4.9	5.0	5.0	4.9	4.9	5.6	6.1	4.9	3.7	3.3	2.9	3.6	4.3	4.5	4.6	3.8	4.3	4.8	5.2	5.1	4.0	4.1	4.0	4.0	5.2	6.1	6.0	5.4	5.2
3.0	3.7	3.9	3.7	3.7	3.4	3.0	3.1	3.2	4.0	3.0	2.5	2.1	3.6	4.2	4.4	3.6	3.4	3.1	2.2	2.9	4.2	4.3	4.1	3.9	3.3	3.6	3.2	3.2	3.1	3.3	3.2	2.5	2.4	2.9	3.2
3.4	3.3	4.1	4.3	3.7	3.5	3.4	2.8	3.2	4.6	5.1	3.8	3.9	4.9	4.3	3.0	3.3	3.7	4.4	4.1	2.9	3.7	3.3	3.4	3.8	4.4	5.4	5.4	4.0	4.9	4.2	3.7	4.3	4.4	4.5	4.8
5.4	5.6	4.5	4.8	4.1	3.6	4.1	4.1	3.9	3.5	4.4	4.7	4.6	4.8	5.4	5.3	4.4	4.3	4.3	5.7	4.3	4.6	5.1	4.6	4.2	4.9	4.4	3.9	3.8	5.7	5.9	4.9	4.7	4.3	4.9	5.4
4.4	5.6	5.4	5.0	4.9	4.2	4.3	4.6	4.5	4.7	4.8	4.2	4.5	4.9	5.3	4.7	4.4	4.8	5.1	5.0	4.5	4.9	4.5	4.7	4.6	4.3	4.3	4.0	4.2	4.3	5.0	4.8	5.0	4.7	4.4	4.2
4.0	4.1	4.1	3.8	3.8	3.7	3.6	3.9	3.8	4.1	4.1	4.0	4.1	3.8	3.7	3.8	3.7	3.6	3.9	4.0	4.3	4.3	4.1	3.7	3.6	3.7	3.9	3.9	3.6	3.7	3.9	4.1	4.0	3.9	4.0	4.1
3.2	3.1	3.3	3.2	2.8	2.8	2.7	2.9	3.3	3.2	3.1	3.4	3.3	2.9	2.7	2.7	2.5	2.4	2.5	2.6	2.5	2.5	2.6	2.5	2.7	2.6	2.6	2.8	2.6	2.5	2.4	2.6	2.7	2.9	3.1	3.2
2.4	2.6	2.6	2.5	2.4	2.3	2.4	2.3	2.7	2.8	2.8	2.9	2.6	2.3	2.3	2.3	2.3	2.2	2.1	2.1	2.1	2.1	3.1	4.3	3.3	2.3	3.2	4.2	4.2	3.5	3.7	4.0	3.2	2.5	2.5	2.4
2.0	2.1	2.3	2.7	2.8	2.6	2.3	2.4	2.4	2.3	2.2	2.1	2.0	2.3	2.3	3.2	4.0	4.5	5.0	5.3	6.6	5.9	4.7	3.9	4.7	4.2	3.6	3.6	4.0	4.3	3.9	3.4	3.7	3.6	3.6	2.4
4.4	4.1	4.0	4.0	3.9	3.9	3.9	3.7	3.4	3.4	4.0	4.4	4.4	4.3	4.1	3.5	3.3	3.2	2.9	2.7	2.5	2.3	2.3	2.3	2.6	2.7	2.8	2.8	2.8	3.0	3.2	3.1	3.0	3.6	4.6	4.3

Figure 32. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS4 (400 hPa)
NOAA15, using all observations



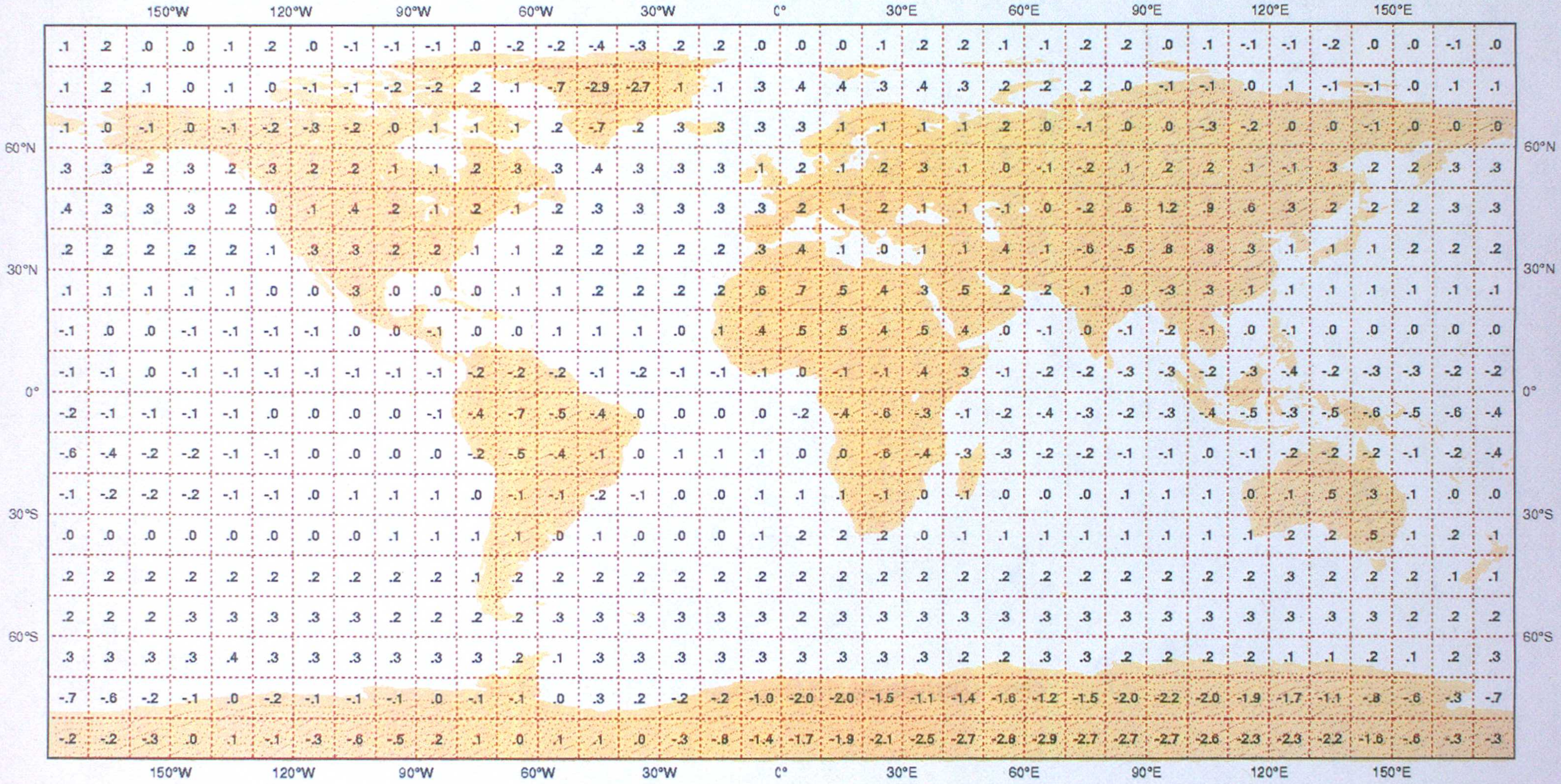
3.3	3.3	3.3	3.3	3.4	3.4	3.4	3.4	3.3	3.4	3.5	3.3	3.3	3.3	3.5	3.3	3.1	2.9	3.0	2.9	2.9	2.9	2.9	3.0	3.1	3.1	3.2	3.2	3.3	3.3	3.4	3.4	3.4	3.4	3.4	3.4
3.0	2.8	2.9	3.0	3.2	3.4	3.5	3.5	3.4	3.4	3.2	3.1	3.4	3.9	3.9	3.5	3.2	3.2	3.1	3.1	3.1	3.3	3.5	3.6	3.7	3.9	4.0	4.1	4.2	4.2	4.2	4.0	3.8	3.5	3.3	3.1
2.4	2.5	2.7	3.1	3.5	3.7	3.9	3.9	3.7	3.4	3.3	3.3	3.2	3.4	3.3	3.3	3.5	3.7	3.7	3.8	4.0	4.4	5.0	5.3	5.5	5.6	5.5	5.4	5.3	5.2	5.1	4.6	4.0	3.4	2.7	2.5
1.9	2.3	2.4	2.6	3.2	3.6	3.8	3.8	3.5	3.2	2.8	2.4	2.2	2.2	2.4	2.9	3.3	3.5	3.5	3.6	3.9	4.4	5.0	5.3	5.6	5.7	5.6	5.5	5.2	4.8	4.3	3.6	2.9	2.4	2.0	2.0
1.8	2.1	2.2	2.4	2.8	2.9	3.1	3.1	2.7	2.3	1.7	1.4	1.3	1.7	1.9	2.4	2.6	2.6	2.8	2.8	3.0	3.4	3.5	3.5	3.5	3.6	3.8	3.7	3.6	3.1	2.5	2.0	1.5	1.4	1.4	1.8
1.2	1.2	1.4	1.6	1.5	1.5	1.4	1.3	1.2	.9	.7	.6	.7	1.2	1.3	1.4	1.5	1.3	1.5	1.4	1.4	1.7	1.5	1.5	1.4	1.5	1.7	1.5	1.4	1.3	.9	.8	.5	.4	.7	.8
-.3	-.4	-.2	.2	.2	.2	-.1	-.3	-.3	-.6	-.5	-.4	-.2	.2	.3	.2	.2	-.2	-.2	-.4	-.4	-.3	-.3	-.2	-.4	-.5	-.5	-.8	-.7	-.6	-.8	-.8	-1.1	-1.1	-.8	-1.0
-1.7	-1.9	-1.6	-1.2	-.9	-.8	-1.0	-1.3	-1.4	-1.7	-1.7	-1.6	-1.5	-1.2	-.9	-1.1	-1.0	-1.5	-1.5	-1.6	-1.5	-1.6	-1.6	-1.5	-1.5	-1.7	-1.7	-1.8	-1.8	-1.9	-1.9	-1.9	-2.2	-2.3	-2.2	-2.4
-2.2	-2.5	-2.2	-1.8	-1.8	-1.6	-1.7	-1.8	-2.0	-2.1	-2.0	-2.1	-2.0	-1.8	-1.5	-1.7	-1.7	-1.9	-2.0	-2.1	-2.0	-2.1	-2.1	-2.1	-2.0	-2.0	-2.0	-2.0	-2.1	-2.1	-2.2	-2.2	-2.4	-2.6	-2.5	-2.7
-2.4	-2.3	-2.1	-1.9	-1.9	-1.7	-1.7	-1.9	-2.1	-2.1	-2.0	-2.0	-1.9	-1.8	-1.6	-1.9	-2.0	-2.0	-2.1	-1.9	-1.9	-2.1	-2.0	-2.1	-2.0	-1.9	-2.1	-2.0	-2.1	-2.2	-2.2	-2.3	-2.4	-2.4	-2.5	-2.4
-2.8	-2.3	-2.1	-1.8	-1.4	-1.1	-1.3	-1.5	-1.9	-2.1	-2.2	-2.3	-2.1	-2.0	-1.9	-1.9	-2.3	-2.2	-2.6	-2.2	-2.3	-2.3	-2.0	-2.2	-2.2	-2.1	-2.4	-2.3	-2.7	-2.7	-2.6	-2.6	-2.6	-2.6	-3.0	-2.7
-3.2	-2.9	-2.7	-2.3	-1.8	-1.6	-1.5	-1.5	-1.9	-2.2	-2.5	-2.5	-2.4	-2.4	-2.2	-2.0	-2.5	-2.4	-2.9	-2.7	-2.7	-2.6	-2.2	-2.3	-2.2	-2.0	-2.1	-2.2	-2.6	-2.8	-2.6	-2.6	-2.4	-2.4	-2.9	-2.9
-3.1	-3.1	-3.2	-3.1	-2.7	-2.6	-2.3	-2.1	-2.2	-2.3	-2.6	-2.6	-2.6	-2.8	-2.7	-2.5	-2.7	-2.5	-2.8	-2.7	-2.8	-2.8	-2.6	-2.6	-2.4	-2.2	-2.2	-2.2	-2.5	-2.7	-2.7	-2.8	-2.6	-2.6	-2.8	-2.7
-3.4	-3.4	-3.6	-3.7	-3.5	-3.6	-3.4	-3.3	-3.2	-3.1	-3.2	-3.1	-3.1	-3.2	-3.3	-3.3	-3.5	-3.7	-3.8	-3.8	-3.7	-3.6	-3.6	-3.5	-3.5	-3.5	-3.5	-3.6	-3.6	-3.6	-3.7	-3.6	-3.5	-3.5	-3.4	-3.3
-4.5	-4.5	-4.6	-4.8	-4.9	-4.8	-4.8	-4.9	-4.8	-4.7	-4.4	-4.2	-4.1	-4.1	-4.3	-4.7	-5.0	-5.4	-5.6	-5.7	-5.7	-5.6	-5.7	-5.6	-5.6	-5.6	-5.7	-5.9	-5.9	-5.8	-5.8	-5.6	-5.4	-5.2	-4.9	-4.7
-6.1	-6.0	-6.1	-6.2	-6.2	-6.1	-6.1	-5.9	-5.7	-5.6	-5.3	-5.0	-5.0	-5.0	-5.1	-5.2	-5.4	-5.6	-5.8	-5.8	-5.8	-5.8	-5.9	-6.0	-6.2	-6.3	-6.2	-6.1	-6.2	-6.4	-6.6	-6.5	-6.5	-6.6	-6.5	-6.3
-6.8	-6.8	-6.7	-6.6	-6.5	-6.4	-6.2	-6.0	-5.8	-5.7	-5.6	-5.5	-5.6	-5.7	-5.8	-6.0	-5.9	-5.5	-5.3	-5.3	-5.4	-5.3	-5.3	-5.4	-5.8	-5.6	-5.2	-5.2	-5.1	-5.3	-5.6	-5.9	-6.4	-6.7	-6.9	-6.9
-6.8	-6.8	-6.7	-6.6	-6.4	-6.3	-6.1	-6.0	-5.9	-5.9	-6.0	-6.1	-6.2	-6.3	-6.3	-6.3	-6.4	-6.3	-6.1	-6.0	-5.9	-5.8	-5.7	-5.8	-5.7	-5.6	-5.5	-5.4	-5.4	-5.6	-6.0	-6.2	-6.6	-6.7	-6.8	-6.9

Figure 33. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS4 (400 hPa)
NOAA15, using all observations



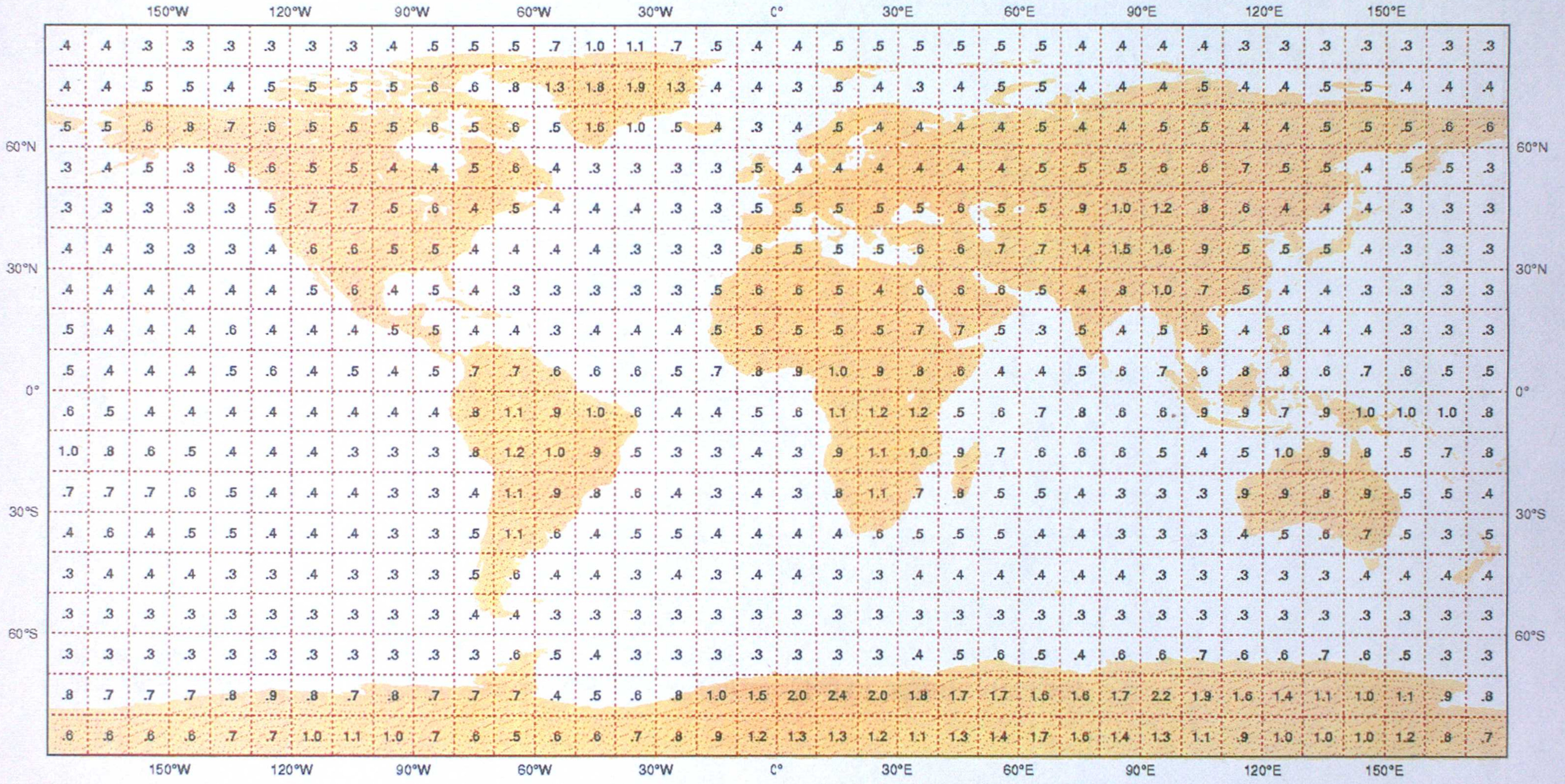
2.5	2.5	2.4	2.3	2.2	2.1	2.0	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.1	2.0	1.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.9	1.9	2.0	2.2	2.3	2.3	2.4	2.4	2.5	2.5	2.5
2.7	2.7	2.6	2.5	2.3	2.1	1.9	1.7	1.8	2.0	2.1	2.2	2.3	2.3	2.3	2.2	2.0	1.9	1.7	1.5	1.5	1.6	1.7	1.8	1.7	1.6	1.6	1.7	2.0	2.3	2.5	2.6	2.6	2.7	2.8	2.8
2.3	2.3	2.3	2.3	2.2	1.9	1.7	1.5	1.5	1.6	1.8	1.8	2.0	2.2	2.3	2.3	2.3	2.0	1.7	1.5	1.5	1.6	1.8	2.0	1.9	1.7	1.5	1.4	1.4	1.6	1.8	1.9	1.9	2.0	2.1	2.2
1.9	1.9	2.1	2.2	2.0	1.8	1.6	1.3	1.3	1.3	1.5	1.7	1.6	1.8	2.0	2.1	2.0	1.8	1.6	1.5	1.5	1.6	1.8	1.9	1.8	1.5	1.4	1.3	1.2	1.1	1.1	1.0	1.1	1.1	1.3	1.6
1.6	1.9	1.9	1.9	1.8	1.7	1.6	1.5	1.3	1.4	1.5	1.6	1.7	1.7	1.7	1.6	1.6	1.5	1.5	1.3	1.4	1.6	1.7	1.8	1.8	1.6	1.5	1.5	1.3	1.2	1.2	1.2	1.3	1.3	1.5	1.5
1.6	1.7	1.7	1.8	1.9	1.7	1.8	1.8	1.7	1.6	1.6	1.7	1.7	1.7	1.7	1.7	1.6	1.5	1.6	1.6	1.6	1.6	1.5	1.7	1.7	1.7	1.6	1.7	1.6	1.5	1.5	1.5	1.5	1.6	1.8	1.7
2.0	2.0	1.9	1.9	1.7	1.8	1.9	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.8	1.8	1.8	1.7	1.8	1.9	1.9	1.9	1.8	2.0	2.1	2.1	2.0	2.0	2.0	1.9	1.9	2.0	2.0	2.0	2.2	2.0
2.1	2.1	2.0	2.0	1.9	1.9	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1	2.1	2.2	2.0
2.2	2.1	2.1	2.1	2.0	2.0	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.2	2.1
2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.0	2.0	2.1	2.0	2.0	2.1	2.0	2.1	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
2.1	2.1	2.0	2.0	2.0	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.0	2.0	2.1	2.1	2.0	2.1	2.0	2.1	2.0	2.0	2.1	2.0	2.1	2.1	2.0	2.1	2.1	2.1	2.1	2.0	2.1	2.1	2.0	2.1
2.0	2.0	2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.9	1.9	2.0	1.9	1.9	1.9	1.9	1.9	2.0	1.9	2.0	1.9	1.9	2.0	1.9	1.9	1.9	1.8	1.9	1.9	2.0	2.0	2.0	2.0	2.0	2.0	2.1
1.7	1.8	1.8	1.7	1.7	1.6	1.7	1.6	1.5	1.6	1.6	1.7	1.6	1.6	1.6	1.5	1.6	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.7	1.8	1.8	1.8
1.3	1.5	1.6	1.5	1.5	1.6	1.7	1.6	1.5	1.4	1.3	1.4	1.4	1.5	1.4	1.4	1.4	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.6	1.4	1.4
1.3	1.4	1.4	1.5	1.6	1.7	1.8	1.8	1.7	1.5	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.4	1.5	1.5	1.3	1.3
1.2	1.1	1.2	1.2	1.4	1.5	1.7	1.7	1.7	1.6	1.6	1.5	1.4	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.3	1.3	1.1	1.1	1.1	1.2	1.2	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.1	1.1
1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.2	1.3	1.3	1.3	1.4	1.4	1.4	1.5	1.5	1.6	1.6	1.4	1.3	1.3	1.3	1.2	1.4	1.4	1.3	1.2	1.1	1.1	1.1	1.0	1.1	1.2	1.3
1.3	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.4	1.4	1.3	1.3	1.3	1.3	1.3

Figure 34. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-5 (700 hPa)
NOAA15, using all observations



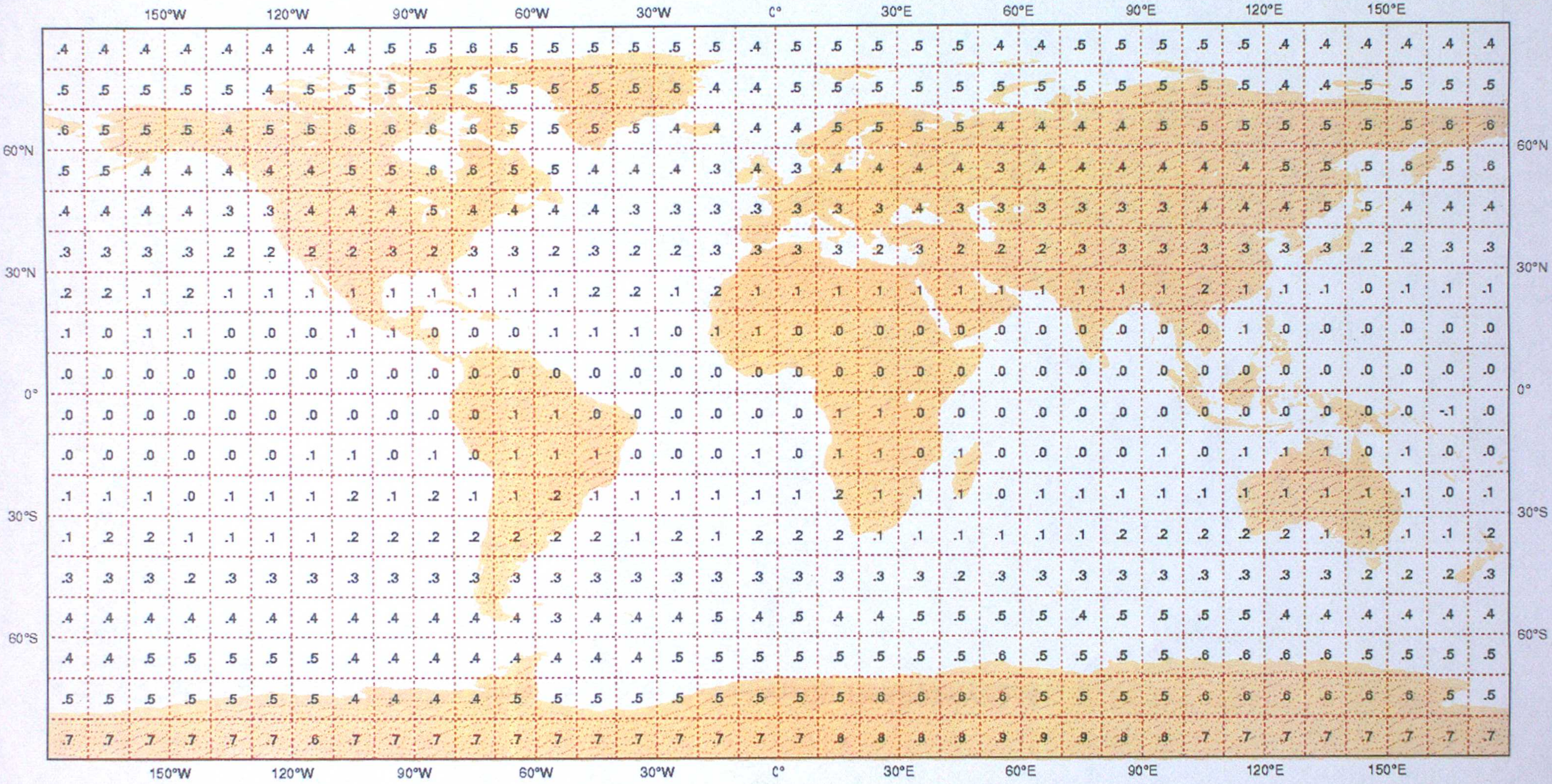
.1	.2	.0	.0	.1	.2	.0	-.1	-.1	-.1	.0	-.2	-.2	-.4	-.3	.2	.2	.0	.0	.0	.1	.2	.2	.1	.1	.2	.2	.0	.1	-.1	-.1	-.2	.0	.0	-.1	.0
.1	.2	.1	.0	.1	.0	-.1	-.1	-.2	-.2	.2	.1	-.7	-2.9	-2.7	.1	.1	.3	.4	.4	.3	.4	.3	.2	.2	.2	.0	-.1	-.1	.0	.1	-.1	-.1	.0	.1	.1
.1	.0	-.1	.0	-.1	-.2	-.3	-.2	.0	.1	.1	.1	.2	-.7	.2	.3	.3	.3	.3	.1	.1	.1	.1	.2	.0	-.1	.0	.0	-.3	-.2	.0	.0	-.1	.0	.0	.0
.3	.3	.2	.3	.2	.3	.2	.2	.1	.1	.2	.3	.3	.4	.3	.3	.3	.1	.2	.1	.2	.3	.1	.0	-.1	-.2	.1	.2	.2	.1	-.1	.3	.2	.2	.3	.3
.4	.3	.3	.3	.2	.0	.1	.4	.2	.1	.2	.1	.2	.3	.3	.3	.3	.3	.2	.1	.2	.1	.1	-.1	.0	-.2	.6	1.2	.9	.6	.3	.2	.2	.2	.3	.3
.2	.2	.2	.2	.2	.1	.3	.3	.2	.2	.1	.1	.2	.2	.2	.2	.2	.3	.4	.1	.0	.1	.1	.4	.1	-.6	-.5	.8	.8	.3	.1	.1	.1	.2	.2	.2
.1	.1	.1	.1	.1	.0	.0	.3	.0	.0	.0	.1	.1	.2	.2	.2	.2	.6	.7	.5	.4	.3	.5	.2	.2	.1	.0	-.3	.3	.1	.1	.1	.1	.1	.1	.1
-.1	.0	.0	-.1	-.1	-.1	-.1	.0	.0	-.1	.0	.0	.1	.1	.1	.0	.1	.4	.5	.5	.4	.5	.4	.0	-.1	.0	-.1	-.2	-.1	.0	-.1	.0	.0	.0	.0	.0
-.1	-.1	.0	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.2	-.2	-.2	-.1	-.2	-.1	-.1	-.1	.0	-.1	-.1	.4	.3	-.1	-.2	-.2	-.3	-.3	-.2	-.3	-.4	-.2	-.3	-.3	-.2	-.2
-.2	-.1	-.1	-.1	-.1	.0	.0	.0	.0	-.1	-.4	-.7	-.5	-.4	.0	.0	.0	.0	-.2	-.4	-.6	-.3	-.1	-.2	-.4	-.3	-.2	-.3	-.4	-.5	-.3	-.5	-.6	-.5	-.6	-.4
-.6	-.4	-.2	-.2	-.1	-.1	.0	.0	.0	.0	-.2	-.5	-.4	-.1	.0	.1	.1	.1	.0	.0	-.6	-.4	-.3	-.3	-.2	-.2	-.1	-.1	.0	-.1	-.2	-.2	-.2	-.1	-.2	-.4
-.1	-.2	-.2	-.2	-.1	-.1	.0	.1	.1	.1	.0	-.1	-.1	-.2	-.1	.0	.0	.1	.1	.1	-.1	.0	-.1	.0	.0	.0	.1	.1	.1	.0	.1	.5	.3	.1	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.1	.0	.0	.0	.1	.2	.2	.2	.0	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	.5	.1	.2	.1
.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.1	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.3	.2	.2	.2	.1	.1
.2	.2	.2	.3	.3	.3	.3	.3	.2	.2	.2	.2	.3	.3	.3	.3	.3	.3	.2	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.2	.2	.2
.3	.3	.3	.3	.4	.3	.3	.3	.3	.3	.3	.2	.1	.3	.3	.3	.3	.3	.3	.3	.3	.3	.2	.2	.3	.3	.2	.2	.2	.2	.1	.1	.2	.1	.2	.3
-.7	-.6	-.2	-.1	.0	-.2	-.1	-.1	-.1	.0	-.1	-.1	.0	.3	.2	-.2	-.2	-1.0	-2.0	-2.0	-1.5	-1.1	-1.4	-1.6	-1.2	-1.5	-2.0	-2.2	-2.0	-1.9	-1.7	-1.1	-.8	-.6	-.3	-.7
-.2	-.2	-.3	.0	.1	-.1	-.3	-.6	-.5	.2	.1	.0	.1	.1	.0	-.3	-.8	-1.4	-1.7	-1.9	-2.1	-2.5	-2.7	-2.8	-2.9	-2.7	-2.7	-2.7	-2.6	-2.3	-2.3	-2.2	-1.6	-.6	-.3	-.3

Figure 35. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-5 (700 hPa)
NOAA15, using all observations



.4	.4	.3	.3	.3	.3	.3	.3	.4	.5	.5	.5	.7	1.0	1.1	.7	.5	.4	.4	.5	.5	.5	.5	.5	.5	.4	.4	.4	.4	.3	.3	.3	.3	.3	.3	.3
.4	.4	.5	.5	.4	.5	.5	.5	.5	.6	.6	.8	1.3	1.8	1.9	1.3	.4	.4	.3	.5	.4	.3	.4	.5	.5	.4	.4	.4	.5	.4	.4	.5	.5	.4	.4	.4
.5	.5	.6	.8	.7	.6	.5	.5	.5	.6	.5	.6	.5	1.6	1.0	.5	.4	.3	.4	.5	.4	.4	.4	.4	.5	.4	.4	.5	.5	.4	.4	.5	.5	.5	.6	.6
.3	.4	.5	.3	.6	.6	.5	.5	.4	.4	.5	.6	.4	.3	.3	.3	.3	.5	.4	.4	.4	.4	.4	.4	.5	.5	.5	.6	.6	.7	.5	.5	.4	.5	.5	.3
.3	.3	.3	.3	.3	.5	.7	.7	.5	.6	.4	.5	.4	.4	.4	.3	.3	.5	.5	.5	.5	.5	.6	.5	.5	.9	1.0	1.2	.8	.6	.4	.4	.4	.3	.3	.3
.4	.4	.3	.3	.3	.4	.6	.6	.5	.5	.4	.4	.4	.4	.3	.3	.3	.6	.5	.5	.5	.6	.6	.7	.7	1.4	1.5	1.6	.9	.5	.5	.5	.4	.3	.3	.3
.4	.4	.4	.4	.4	.4	.5	.6	.4	.5	.4	.3	.3	.3	.3	.3	.5	.6	.6	.5	.4	.6	.6	.6	.5	.4	.8	1.0	.7	.5	.4	.4	.3	.3	.3	.3
.5	.4	.4	.4	.6	.4	.4	.4	.5	.5	.4	.4	.3	.4	.4	.4	.5	.5	.5	.5	.5	.7	.7	.5	.3	.5	.4	.5	.5	.4	.6	.4	.4	.3	.3	.3
.5	.4	.4	.4	.5	.6	.4	.5	.4	.5	.7	.7	.6	.6	.6	.5	.7	.8	.9	1.0	.9	.8	.6	.4	.4	.5	.6	.7	.6	.8	.8	.6	.7	.6	.5	.5
.6	.5	.4	.4	.4	.4	.4	.4	.4	.4	.8	1.1	.9	1.0	.6	.4	.4	.5	.6	1.1	1.2	1.2	.5	.6	.7	.8	.6	.6	.9	.9	.7	.9	1.0	1.0	1.0	.8
1.0	.8	.6	.5	.4	.4	.4	.3	.3	.3	.8	1.2	1.0	.9	.5	.3	.3	.4	.3	.9	1.1	1.0	.9	.7	.6	.6	.6	.5	.4	.5	1.0	.9	.8	.5	.7	.8
.7	.7	.7	.6	.5	.4	.4	.4	.3	.3	.4	1.1	.9	.8	.6	.4	.3	.4	.3	.8	1.1	.7	.8	.5	.5	.4	.3	.3	.3	.9	.9	.8	.9	.5	.5	.4
.4	.6	.4	.5	.5	.4	.4	.4	.3	.3	.5	1.1	.6	.4	.5	.5	.4	.4	.4	.4	.6	.5	.5	.5	.4	.4	.3	.3	.3	.4	.5	.6	.7	.5	.3	.5
.3	.4	.4	.4	.3	.3	.4	.3	.3	.3	.5	.6	.4	.4	.3	.4	.3	.4	.4	.3	.3	.4	.4	.4	.4	.4	.4	.3	.3	.3	.3	.3	.4	.4	.4	.4
.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.4	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.6	.5	.4	.3	.3	.3	.3	.3	.3	.3	.4	.5	.6	.5	.4	.6	.6	.7	.6	.6	.7	.6	.5	.3	.3
.8	.7	.7	.7	.8	.9	.8	.7	.8	.7	.7	.7	.4	.5	.6	.8	1.0	1.5	2.0	2.4	2.0	1.8	1.7	1.7	1.6	1.6	1.7	2.2	1.9	1.6	1.4	1.1	1.0	1.1	.9	.8
.6	.6	.6	.6	.7	.7	1.0	1.1	1.0	.7	.6	.5	.6	.6	.7	.8	.9	1.2	1.3	1.3	1.2	1.1	1.3	1.4	1.7	1.6	1.4	1.3	1.1	.9	1.0	1.0	1.0	1.2	.8	.7

Figure 36. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-7 (300 hPa)
NOAA15, using all observations



.4	.4	.4	.4	.4	.4	.4	.4	.5	.5	.6	.5	.5	.5	.5	.5	.5	.4	.5	.5	.5	.5	.5	.4	.4	.5	.5	.5	.5	.5	.4	.4	.4	.4	.4	.4
.5	.5	.5	.5	.5	.4	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.4	.4	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.4	.4	.5	.5	.5	.5
.6	.5	.5	.5	.4	.5	.5	.6	.6	.6	.6	.5	.5	.5	.5	.4	.4	.4	.4	.5	.5	.5	.5	.4	.4	.4	.4	.5	.5	.5	.5	.5	.5	.5	.6	.6
.5	.5	.4	.4	.4	.4	.4	.5	.5	.6	.6	.5	.5	.4	.4	.4	.3	.4	.3	.4	.4	.4	.4	.3	.4	.4	.4	.4	.4	.4	.5	.5	.5	.6	.5	.6
.4	.4	.4	.4	.3	.3	.4	.4	.4	.5	.4	.4	.4	.4	.3	.3	.3	.3	.3	.3	.3	.4	.3	.3	.3	.3	.3	.3	.3	.4	.4	.4	.5	.5	.4	.4
.3	.3	.3	.3	.2	.2	.2	.2	.3	.2	.3	.3	.2	.3	.2	.2	.3	.3	.3	.3	.2	.3	.2	.2	.2	.3	.3	.3	.3	.3	.3	.3	.2	.2	.3	.3
.2	.2	.1	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	.1	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.1	.1	.1	.0	.1	.1	.1
.1	.0	.1	.1	.0	.0	.0	.1	.1	.0	.0	.0	.1	.1	.1	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	-.1	.0
.0	.0	.0	.0	.0	.0	.1	.1	.0	.1	.0	.1	.1	.1	.0	.0	.0	.1	.0	.1	.1	.0	.1	.0	.0	.0	.0	.1	.0	.1	.1	.1	.0	.1	.0	.0
.1	.1	.1	.0	.1	.1	.1	.2	.1	.2	.1	.1	.2	.1	.1	.1	.1	.1	.1	.2	.1	.1	.1	.0	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.0	.1
.1	.2	.2	.1	.1	.1	.1	.2	.2	.2	.2	.2	.2	.2	.1	.2	.1	.2	.2	.2	.1	.1	.1	.1	.1	.1	.2	.2	.2	.2	.2	.1	.1	.1	.1	.2
.3	.3	.3	.2	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.2	.3	.3	.3	.3	.3	.3	.3	.3	.3	.2	.2	.2	.3
.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.3	.4	.4	.4	.5	.4	.5	.4	.4	.5	.5	.5	.5	.4	.5	.5	.5	.5	.4	.4	.4	.4	.4	.4
.4	.4	.5	.5	.5	.5	.5	.4	.4	.4	.4	.4	.4	.4	.4	.5	.5	.5	.5	.5	.5	.5	.5	.6	.5	.5	.5	.5	.6	.6	.6	.6	.5	.5	.5	.5
.5	.5	.5	.5	.5	.5	.5	.4	.4	.4	.4	.5	.5	.5	.5	.5	.5	.5	.5	.5	.6	.6	.6	.6	.5	.5	.5	.5	.6	.6	.6	.6	.6	.6	.5	.5
.7	.7	.7	.7	.7	.7	.6	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.8	.8	.8	.8	.9	.9	.9	.8	.8	.7	.7	.7	.7	.7	.7	.7	.7

Figure 37. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-7 (300 hPa)
NOAA15, using all observations

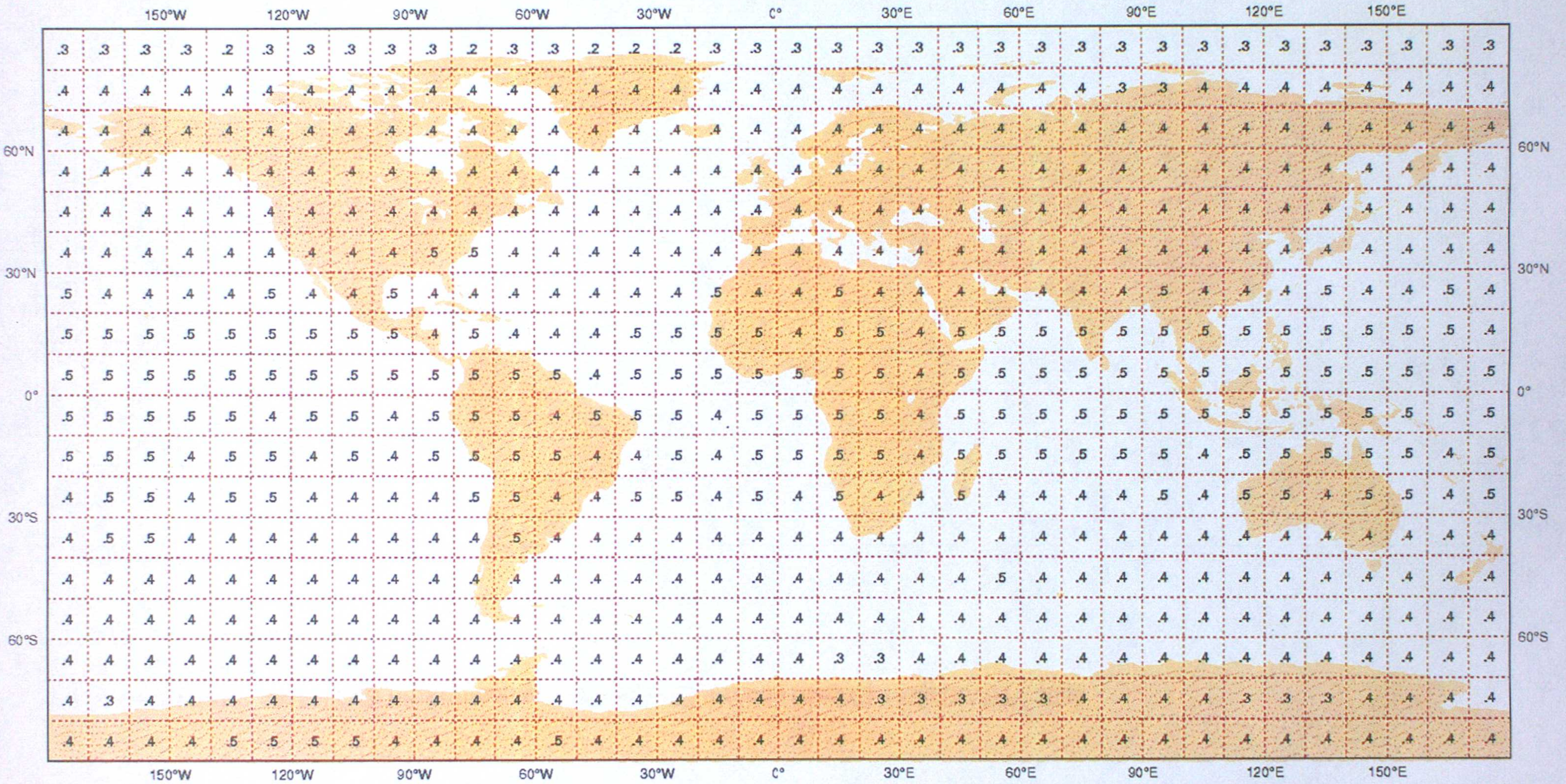
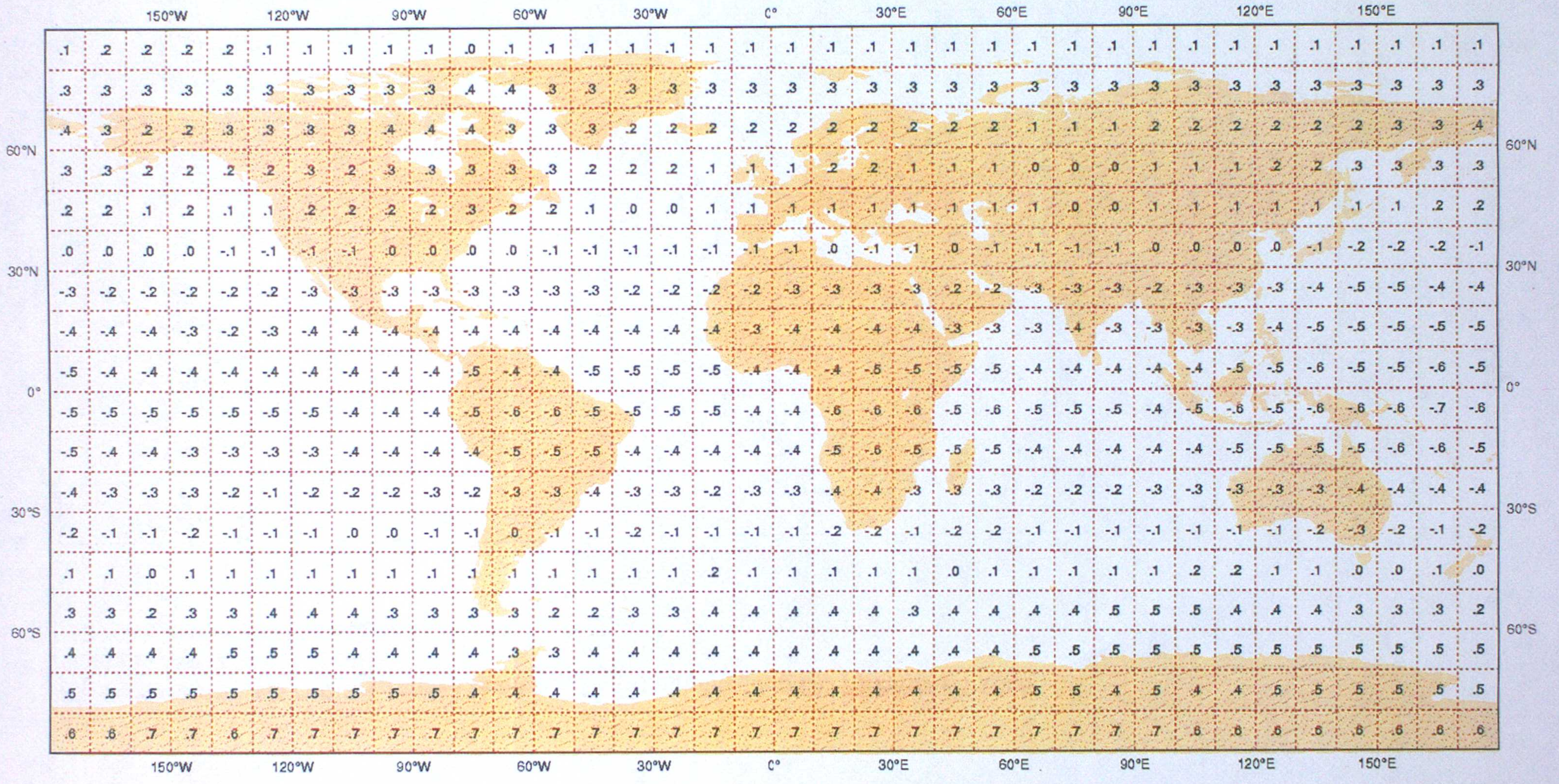

150°W 120°W 90°W 60°W 30°W 0° 30°E 60°E 90°E 120°E 150°E
60°N
30°N
0°
30°S
60°S
.3 .3 .3 .3 .2 .3 .3 .3 .3 .3 .2 .3 .3 .2 .2 .2 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .3 .3 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .5 .5 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.5 .4 .4 .4 .4 .5 .4 .4 .5 .4 .4 .4 .4 .4 .4 .4 .5 .4 .4 .5 .4 .4 .4 .4 .4 .4 .4 .5 .4 .4 .4 .5 .4 .4 .5 .4
.5 .5 .5 .5 .5 .5 .5 .5 .5 .4 .5 .4 .4 .4 .5 .5 .5 .5 .4 .5 .5 .4 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .4
.5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .4 .5 .5 .5 .5 .5 .5 .5 .4 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5
.5 .5 .5 .5 .5 .4 .5 .5 .4 .5 .5 .5 .4 .5 .5 .5 .4 .5 .5 .5 .5 .4 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5
.5 .5 .5 .4 .5 .5 .4 .5 .4 .5 .5 .5 .5 .4 .4 .5 .4 .5 .5 .5 .5 .4 .5 .5 .5 .5 .5 .5 .4 .5 .5 .5 .5 .5 .4 .5
.4 .5 .5 .4 .5 .5 .4 .4 .4 .4 .5 .5 .4 .4 .5 .5 .4 .5 .4 .5 .4 .4 .5 .4 .4 .4 .4 .5 .4 .5 .5 .4 .5 .5 .4 .5
.4 .5 .5 .4 .4 .4 .4 .4 .4 .4 .4 .5 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .5 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .3 .3 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .3 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .3 .3 .3 .3 .3 .4 .4 .4 .4 .3 .3 .3 .4 .4 .4 .4
.4 .4 .4 .4 .5 .5 .5 .5 .4 .4 .4 .4 .5 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4

Figure 38. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-9 (100 hPa)
NOAA15, using all observations



.1	.2	.2	.2	.2	.1	.1	.1	.1	.1	.0	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.4	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
.4	.3	.2	.2	.3	.3	.3	.3	.4	.4	.4	.3	.3	.3	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.1	.1	.1	.2	.2	.2	.2	.2	.2	.3	.3	.4
.3	.3	.2	.2	.2	.2	.3	.2	.3	.3	.3	.3	.3	.2	.2	.2	.1	.1	.1	.2	.2	.1	.1	.1	.0	.0	.0	.1	.1	.1	.2	.2	.3	.3	.3	.3
.2	.2	.1	.2	.1	.1	.2	.2	.2	.2	.3	.2	.2	.1	.0	.0	.1	.1	.1	.1	.1	.1	.1	.1	.1	.0	.0	.1	.1	.1	.1	.1	.1	.1	.2	.2
.0	.0	.0	.0	-.1	-.1	-.1	-.1	.0	.0	.0	.0	-.1	-.1	-.1	-.1	-.1	-.1	-.1	.0	-.1	-.1	.0	-.1	-.1	-.1	-.1	.0	.0	.0	.0	-.1	-.2	-.2	-.2	-.1
-.3	-.2	-.2	-.2	-.2	-.2	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.2	-.2	-.2	-.2	-.3	-.3	-.3	-.3	-.2	-.2	-.3	-.3	-.3	-.2	-.3	-.3	-.3	-.4	-.5	-.5	-.4	-.4
-.4	-.4	-.4	-.3	-.2	-.3	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.3	-.4	-.4	-.4	-.4	-.3	-.3	-.3	-.4	-.3	-.3	-.3	-.3	-.4	-.5	-.5	-.5	-.5	-.5
-.5	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.5	-.4	-.4	-.5	-.5	-.5	-.5	-.4	-.4	-.4	-.5	-.5	-.5	-.5	-.4	-.4	-.4	-.4	-.4	-.5	-.5	-.6	-.5	-.5	-.6	-.5
-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.4	-.4	-.4	-.5	-.6	-.6	-.5	-.5	-.5	-.5	-.4	-.4	-.6	-.6	-.6	-.5	-.6	-.5	-.5	-.5	-.4	-.5	-.6	-.5	-.6	-.6	-.6	-.7	-.6
-.5	-.4	-.4	-.3	-.3	-.3	-.3	-.4	-.4	-.4	-.4	-.5	-.5	-.5	-.4	-.4	-.4	-.4	-.4	-.5	-.6	-.5	-.5	-.5	-.4	-.4	-.4	-.4	-.4	-.5	-.5	-.5	-.5	-.6	-.6	-.5
-.4	-.3	-.3	-.3	-.2	-.1	-.2	-.2	-.2	-.3	-.2	-.3	-.3	-.4	-.3	-.3	-.2	-.3	-.3	-.4	-.4	-.3	-.3	-.3	-.2	-.2	-.2	-.3	-.3	-.3	-.3	-.3	-.4	-.4	-.4	-.4
-.2	-.1	-.1	-.2	-.1	-.1	-.1	.0	.0	-.1	-.1	.0	-.1	-.1	-.2	-.1	-.1	-.1	-.1	-.2	-.2	-.1	-.2	-.2	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.2	-.3	-.2	-.1	-.2
.1	.1	.0	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.1	.1	.1	.1	.1	.0	.1	.1	.1	.1	.1	.2	.2	.1	.1	.0	.0	.1	.0
.3	.3	.2	.3	.3	.4	.4	.4	.3	.3	.3	.3	.2	.2	.3	.3	.4	.4	.4	.4	.4	.3	.4	.4	.4	.4	.5	.5	.5	.4	.4	.4	.3	.3	.3	.2
.4	.4	.4	.4	.5	.5	.5	.4	.4	.4	.4	.3	.3	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5
.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.5	.5	.4	.5	.4	.4	.5	.5	.5	.5	.5	.5
.6	.6	.7	.7	.6	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.6	.6	.6	.6	.6	.6	.6	.6

Figure 39. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-9 (100 hPa)
NOAA15, using all observations

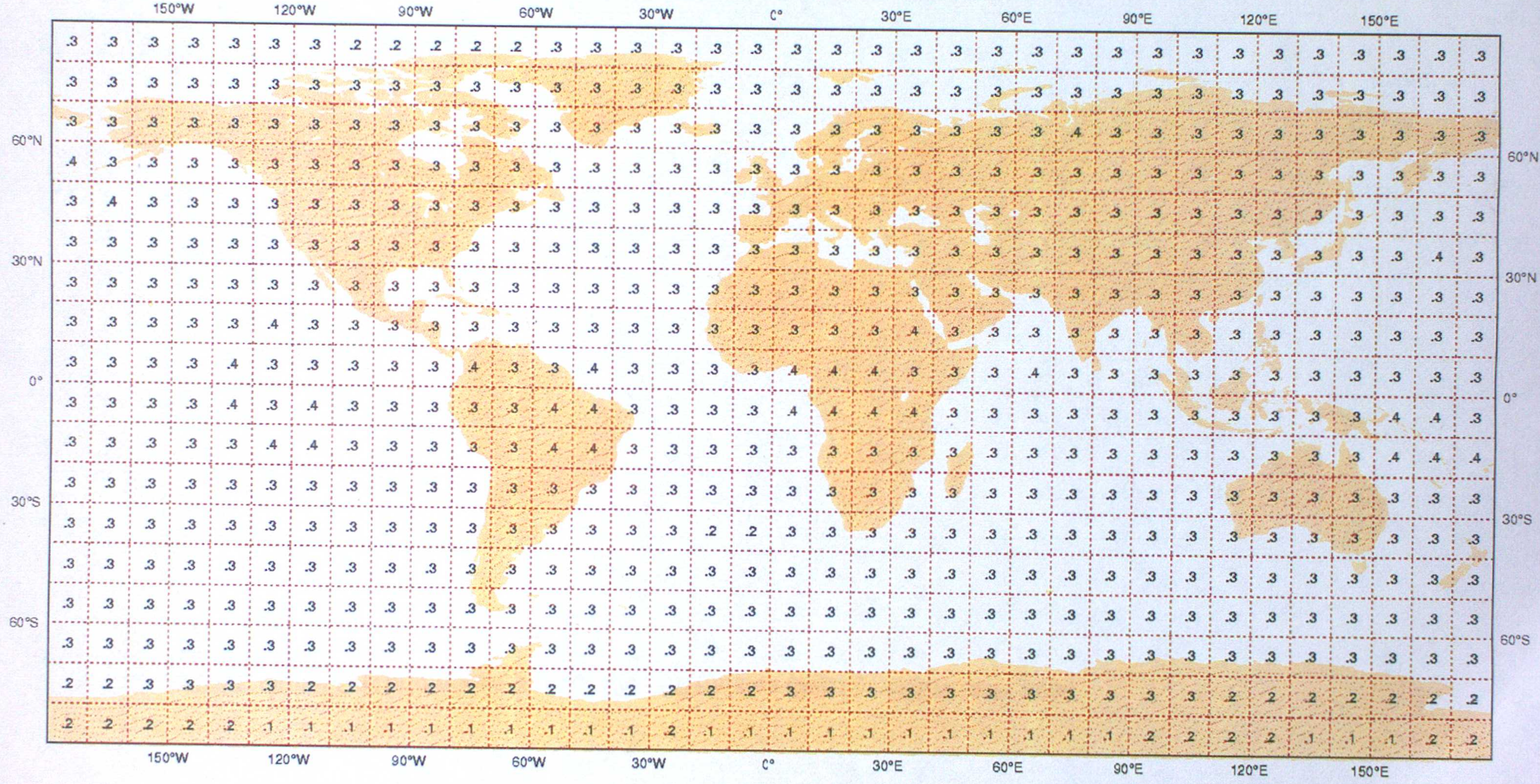
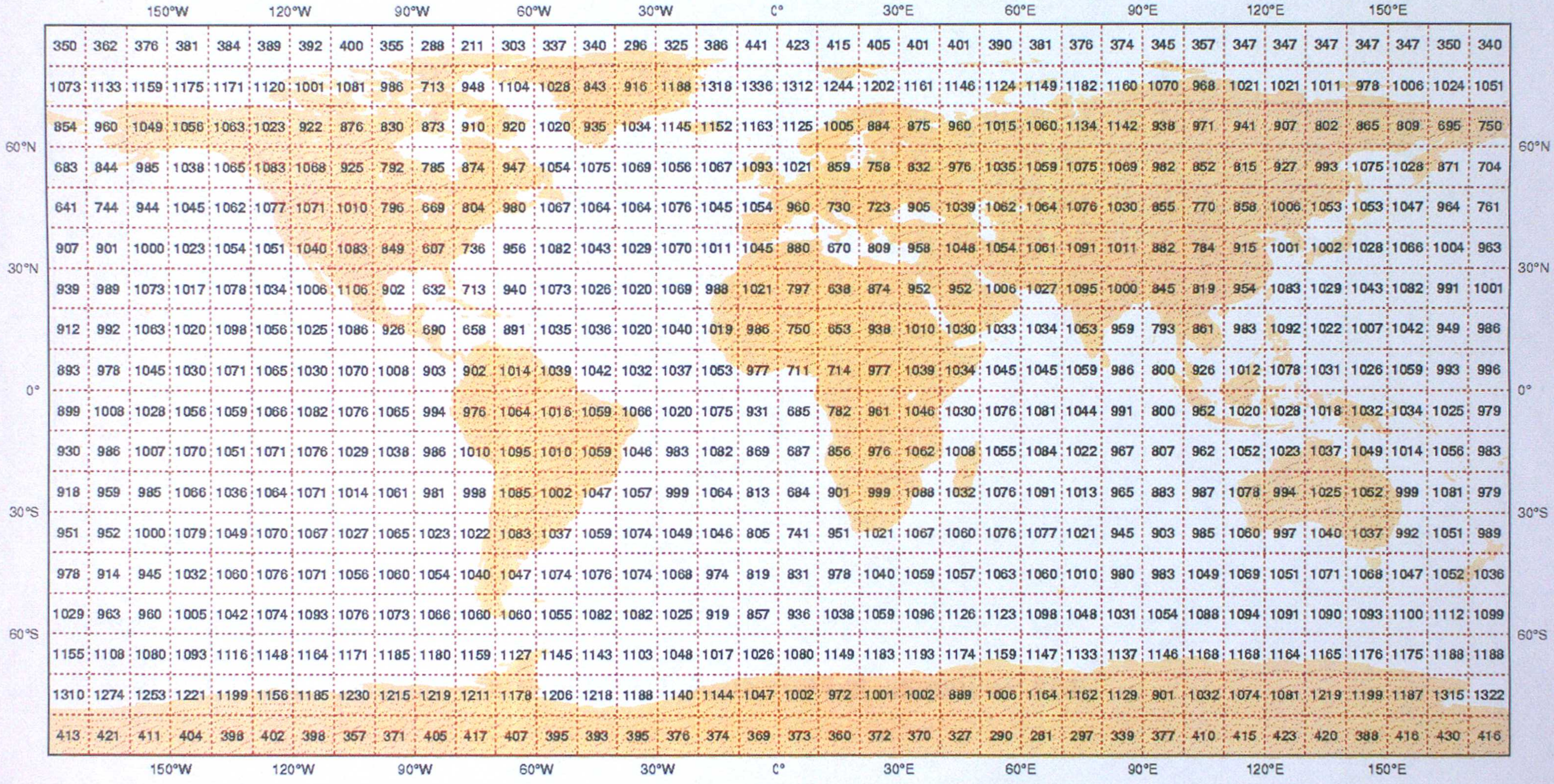
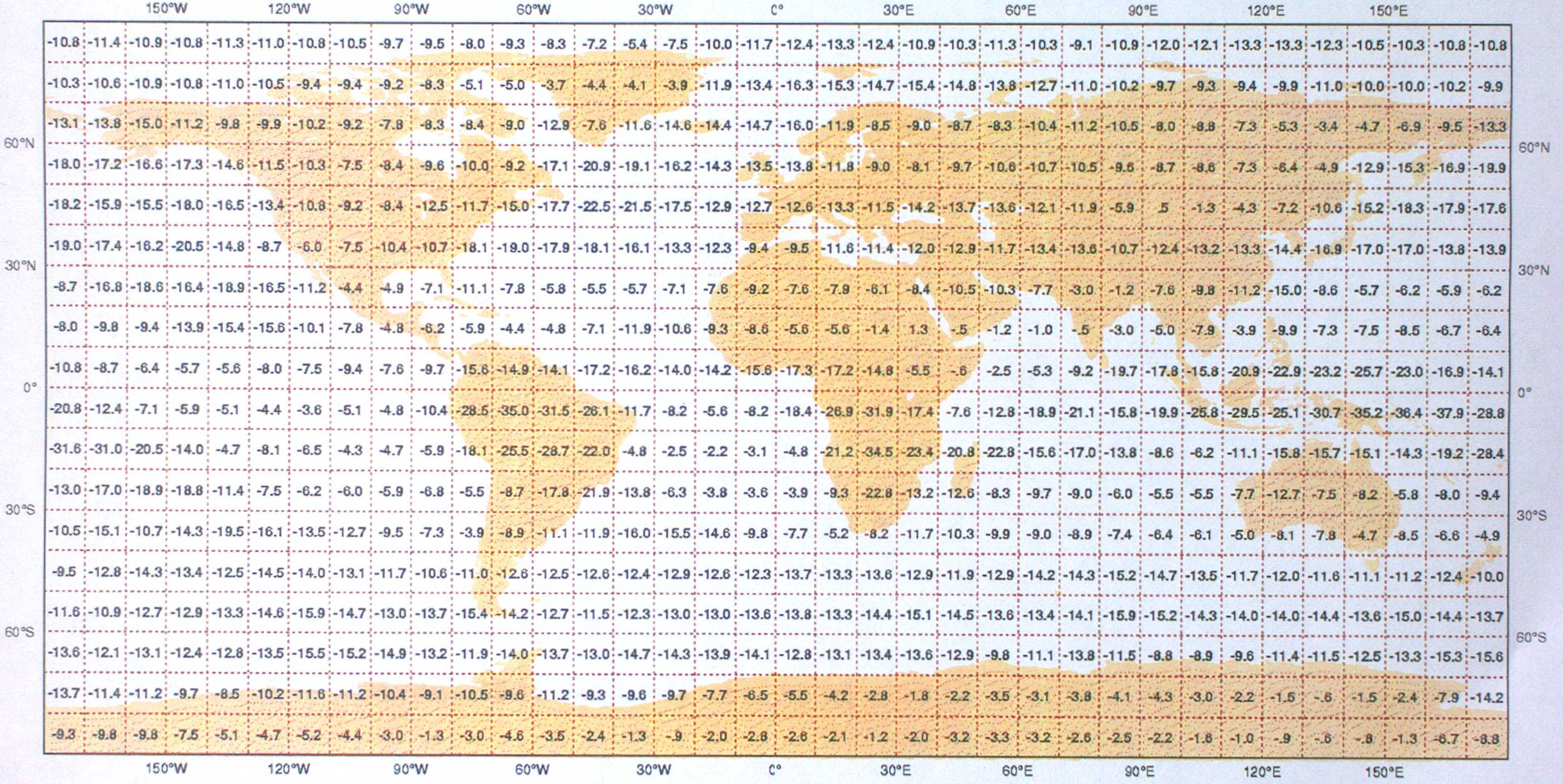

150°W
120°W
90°W
60°W
30°W
0°
30°E
60°E
90°E
120°E
150°E
60°N
30°N
0°
30°S
60°S
.3 .3 .3 .3 .3 .3 .3 .2 .2 .2 .2 .2 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .4 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.4 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .4 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .4 .3
.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .4 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .4 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .4 .3 .3 .3 .3 .3 .4 .3 .3 .4 .3 .3 .3 .3 .4 .4 .4 .3 .3 .3 .4 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .4 .3 .4 .3 .3 .3 .3 .3 .4 .4 .3 .3 .3 .3 .4 .4 .4 .4 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .4 .4 .3
.3 .3 .3 .3 .3 .4 .4 .3 .3 .3 .3 .3 .4 .4 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .4 .4 .4
.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .2 .2 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.2 .2 .3 .3 .3 .3 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .2 .2 .2 .2 .2 .2 .2
.2 .2 .2 .2 .2 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1 .2 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1 .1 .2 .2 .2 .2 .1 .1 .1 .2 .2

Figure 40. ATOVS mean daily count. FEBRUARY 2006
NOAA16, using all observations
Global average number of observations in 24 hours = 611175



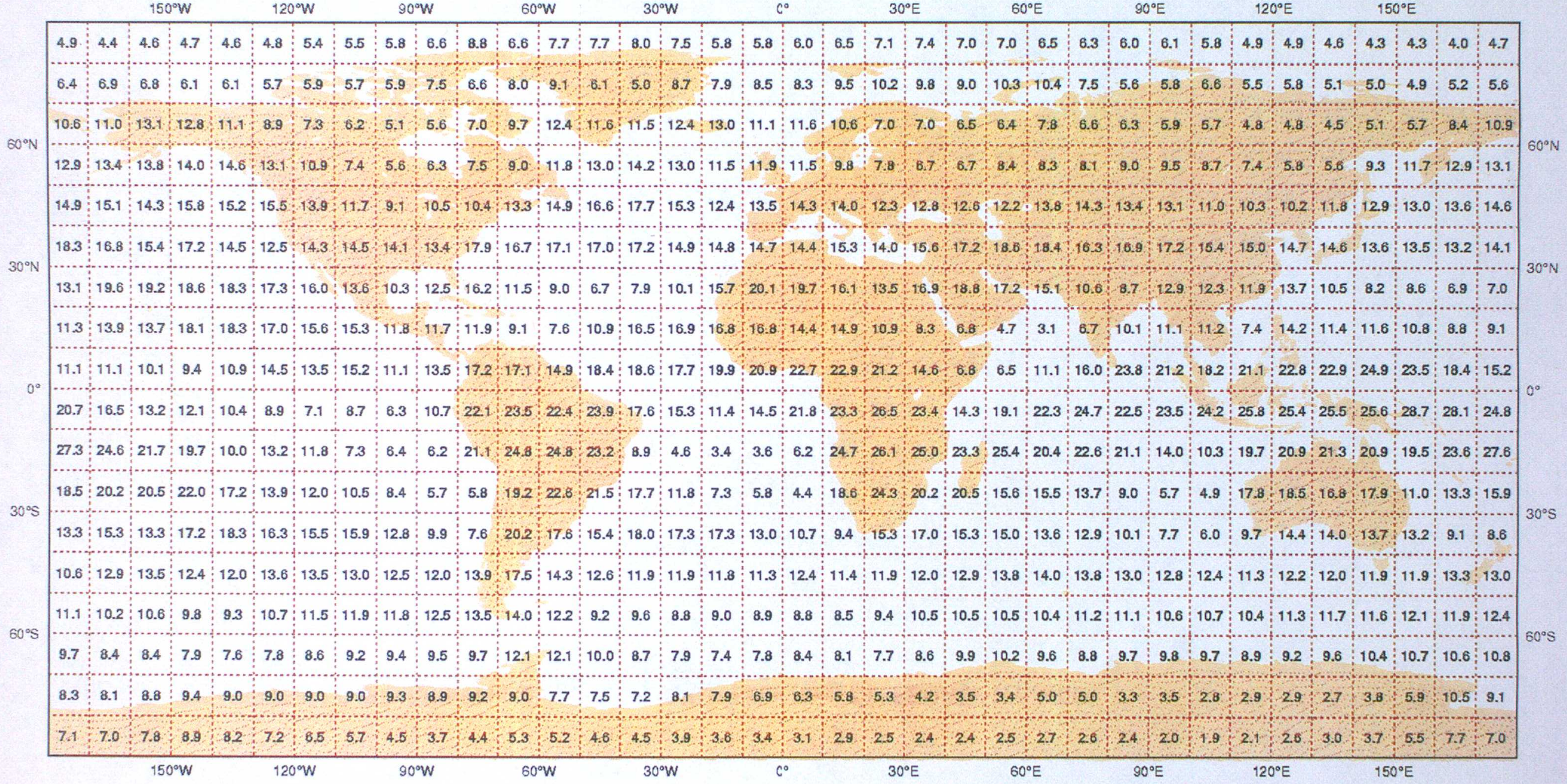
350	362	376	381	384	389	392	400	355	288	211	303	337	340	296	325	386	441	423	415	405	401	401	390	381	376	374	345	357	347	347	347	347	347	350	340
1073	1133	1159	1175	1171	1120	1001	1081	986	713	948	1104	1028	843	916	1188	1318	1336	1312	1244	1202	1161	1146	1124	1149	1182	1160	1070	968	1021	1021	1011	978	1006	1024	1051
854	960	1049	1056	1063	1023	922	876	830	873	910	920	1020	935	1034	1145	1152	1163	1125	1005	884	875	960	1015	1060	1134	1142	938	971	941	907	802	865	809	695	750
683	844	985	1038	1065	1083	1068	925	792	785	874	947	1054	1075	1069	1056	1067	1093	1021	859	758	832	976	1035	1059	1075	1069	982	852	815	927	993	1075	1028	871	704
641	744	944	1045	1062	1077	1071	1010	796	669	804	980	1067	1064	1064	1076	1045	1054	960	730	723	905	1039	1062	1064	1076	1030	855	770	858	1006	1053	1053	1047	964	761
907	901	1000	1023	1054	1051	1040	1083	849	607	736	956	1082	1043	1029	1070	1011	1045	880	670	809	958	1048	1054	1061	1091	1011	882	784	915	1001	1002	1028	1066	1004	963
939	989	1073	1017	1078	1034	1006	1106	902	632	713	940	1073	1026	1020	1069	988	1021	797	638	874	952	952	1006	1027	1095	1000	845	819	954	1083	1029	1043	1082	991	1001
912	992	1063	1020	1098	1056	1025	1086	926	690	658	891	1035	1036	1020	1040	1019	986	750	653	938	1010	1030	1033	1034	1053	959	793	861	983	1092	1022	1007	1042	949	986
893	978	1045	1030	1071	1065	1030	1070	1008	903	902	1014	1039	1042	1032	1037	1053	977	711	714	977	1039	1034	1045	1045	1059	986	800	926	1012	1078	1031	1026	1059	993	996
899	1008	1028	1056	1059	1066	1082	1076	1065	994	976	1064	1016	1059	1066	1020	1075	931	685	782	961	1046	1030	1076	1081	1044	991	800	952	1020	1028	1018	1032	1034	1025	979
930	986	1007	1070	1051	1071	1076	1029	1038	986	1010	1095	1010	1059	1046	983	1082	869	687	856	976	1062	1008	1055	1084	1022	967	807	962	1052	1023	1037	1049	1014	1056	983
918	959	985	1066	1036	1064	1071	1014	1061	981	998	1085	1002	1047	1057	999	1064	813	684	901	999	1088	1032	1076	1091	1013	965	883	987	1078	994	1025	1052	999	1081	979
951	952	1000	1079	1049	1070	1067	1027	1065	1023	1022	1083	1037	1059	1074	1049	1046	805	741	951	1021	1067	1060	1076	1077	1021	945	903	985	1060	997	1040	1037	992	1051	989
978	914	945	1032	1060	1076	1071	1056	1060	1054	1040	1047	1074	1076	1074	1068	974	819	831	978	1040	1059	1057	1063	1060	1010	980	983	1049	1069	1051	1071	1068	1047	1052	1036
1029	963	960	1005	1042	1074	1093	1076	1073	1066	1060	1060	1055	1082	1082	1025	919	857	936	1038	1059	1096	1126	1123	1098	1048	1031	1054	1088	1094	1091	1090	1093	1100	1112	1099
1155	1108	1080	1093	1116	1148	1164	1171	1185	1180	1159	1127	1145	1143	1103	1048	1017	1026	1080	1149	1183	1193	1174	1159	1147	1133	1137	1146	1168	1168	1164	1165	1176	1175	1188	1188
1310	1274	1253	1221	1199	1156	1185	1230	1215	1219	1211	1178	1206	1218	1188	1140	1144	1047	1002	972	1001	1002	889	1006	1164	1162	1129	901	1032	1074	1081	1219	1199	1187	1315	1322
413	421	411	404	398	402	398	357	371	405	417	407	395	393	395	376	374	369	373	360	372	370	327	290	281	297	339	377	410	415	423	420	388	416	430	416

Figure 41. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS8 (Surface)
NOAA16, using all observations



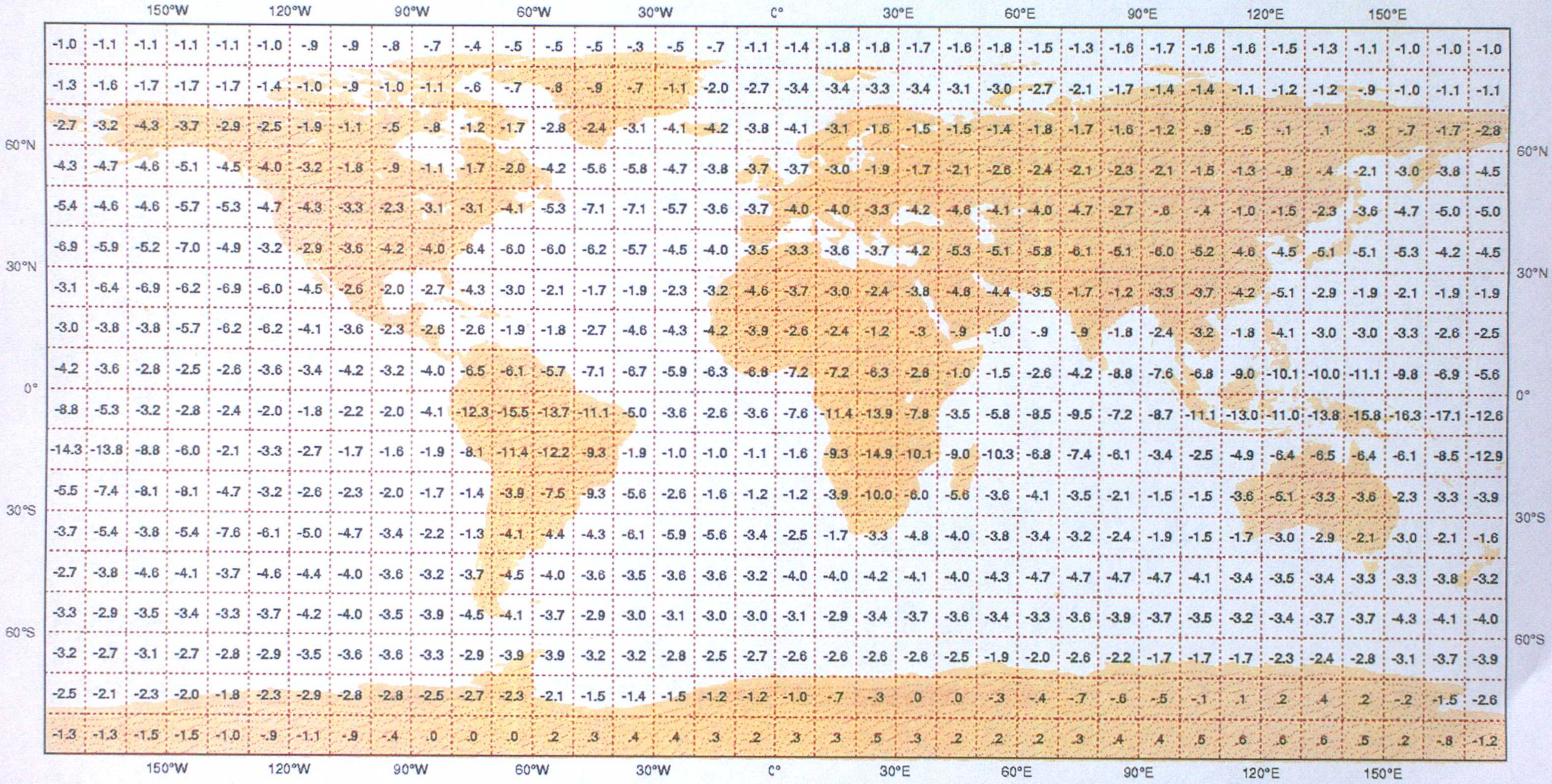
-10.8	-11.4	-10.9	-10.8	-11.3	-11.0	-10.8	-10.5	-9.7	-9.5	-8.0	-9.3	-8.3	-7.2	-5.4	-7.5	-10.0	-11.7	-12.4	-13.3	-12.4	-10.9	-10.3	-11.3	-10.3	-9.1	-10.9	-12.0	-12.1	-13.3	-13.3	-12.3	-10.5	-10.3	-10.8	-10.8
-10.3	-10.6	-10.9	-10.8	-11.0	-10.5	-9.4	-9.4	-9.2	-8.3	-5.1	-5.0	-3.7	-4.4	-4.1	-3.9	-11.9	-13.4	-16.3	-15.3	-14.7	-15.4	-14.8	-13.8	-12.7	-11.0	-10.2	-9.7	-9.3	-9.4	-9.9	-11.0	-10.0	-10.0	-10.2	-9.9
-13.1	-13.8	-15.0	-11.2	-9.8	-9.9	-10.2	-9.2	-7.8	-8.3	-8.4	-9.0	-12.9	-7.6	-11.6	-14.6	-14.4	-14.7	-16.0	-11.9	-8.5	-9.0	-8.7	-8.3	-10.4	-11.2	-10.5	-8.0	-8.8	-7.3	-5.3	-3.4	-4.7	-6.9	-9.5	-13.3
-18.0	-17.2	-16.6	-17.3	-14.6	-11.5	-10.3	-7.5	-8.4	-9.6	-10.0	-9.2	-17.1	-20.9	-19.1	-16.2	-14.3	-13.5	-13.8	-11.8	-9.0	-8.1	-9.7	-10.6	-10.7	-10.5	-9.6	-8.7	-8.6	-7.3	-6.4	-4.9	-12.9	-15.3	-16.9	-19.9
-18.2	-15.9	-15.5	-18.0	-16.5	-13.4	-10.8	-9.2	-8.4	-12.5	-11.7	-15.0	-17.7	-22.5	-21.5	-17.5	-12.9	-12.7	-12.6	-13.3	-11.5	-14.2	-13.7	-13.6	-12.1	-11.9	-5.9	.5	-1.3	-4.3	-7.2	-10.6	-15.2	-18.3	-17.9	-17.6
-19.0	-17.4	-16.2	-20.5	-14.8	-8.7	-6.0	-7.5	-10.4	-10.7	-18.1	-19.0	-17.9	-18.1	-16.1	-13.3	-12.3	-9.4	-9.5	-11.6	-11.4	-12.0	-12.9	-11.7	-13.4	-13.6	-10.7	-12.4	-13.2	-13.3	-14.4	-16.9	-17.0	-17.0	-13.8	-13.9
-8.7	-16.8	-18.6	-16.4	-18.9	-16.5	-11.2	-4.4	-4.9	-7.1	-11.1	-7.8	-5.8	-5.5	-5.7	-7.1	-7.6	-9.2	-7.6	-7.9	-6.1	-8.4	-10.5	-10.3	-7.7	-3.0	-1.2	-7.6	-9.8	-11.2	-15.0	-8.6	-5.7	-6.2	-5.9	-6.2
-8.0	-9.8	-9.4	-13.9	-15.4	-15.6	-10.1	-7.8	-4.8	-6.2	-5.9	-4.4	-4.8	-7.1	-11.9	-10.6	-9.3	-8.6	-5.6	-5.6	-1.4	1.3	-.5	-1.2	-1.0	-.5	-3.0	-5.0	-7.9	-3.9	-9.9	-7.3	-7.5	-8.5	-6.7	-6.4
-10.8	-8.7	-6.4	-5.7	-5.6	-8.0	-7.5	-9.4	-7.6	-9.7	-15.6	-14.9	-14.1	-17.2	-16.2	-14.0	-14.2	-15.6	-17.3	-17.2	-14.8	-5.5	-.6	-2.5	-5.3	-9.2	-19.7	-17.8	-15.8	-20.9	-22.9	-23.2	-25.7	-23.0	-16.9	-14.1
-20.8	-12.4	-7.1	-5.9	-5.1	-4.4	-3.6	-5.1	-4.8	-10.4	-28.5	-35.0	-31.5	-26.1	-11.7	-8.2	-5.6	-8.2	-18.4	-26.9	-31.9	-17.4	-7.6	-12.8	-18.9	-21.1	-15.8	-19.9	-25.8	-29.5	-25.1	-30.7	-35.2	-36.4	-37.9	-28.8
-31.6	-31.0	-20.5	-14.0	-4.7	-8.1	-6.5	-4.3	-4.7	-5.9	-18.1	-25.5	-28.7	-22.0	-4.8	-2.5	-2.2	-3.1	-4.8	-21.2	-34.5	-23.4	-20.8	-22.8	-15.6	-17.0	-13.8	-8.6	-6.2	-11.1	-15.8	-15.7	-15.1	-14.3	-19.2	-28.4
-13.0	-17.0	-18.9	-18.8	-11.4	-7.5	-6.2	-6.0	-5.9	-6.8	-5.5	-8.7	-17.8	-21.9	-13.8	-6.3	-3.8	-3.6	-3.9	-9.3	-22.8	-13.2	-12.6	-8.3	-9.7	-9.0	-6.0	-5.5	-5.5	-7.7	-12.7	-7.5	-8.2	-5.8	-8.0	-9.4
-10.5	-15.1	-10.7	-14.3	-19.5	-16.1	-13.5	-12.7	-9.5	-7.3	-3.9	-8.9	-11.1	-11.9	-16.0	-15.5	-14.6	-9.8	-7.7	-5.2	-8.2	-11.7	-10.3	-9.9	-9.0	-8.9	-7.4	-6.4	-6.1	-5.0	-8.1	-7.8	-4.7	-8.5	-6.6	-4.9
-9.5	-12.8	-14.3	-13.4	-12.5	-14.5	-14.0	-13.1	-11.7	-10.6	-11.0	-12.6	-12.5	-12.6	-12.4	-12.9	-12.6	-12.3	-13.7	-13.3	-13.6	-12.9	-11.9	-12.9	-14.2	-14.3	-15.2	-14.7	-13.5	-11.7	-12.0	-11.6	-11.1	-11.2	-12.4	-10.0
-11.6	-10.9	-12.7	-12.9	-13.3	-14.6	-15.9	-14.7	-13.0	-13.7	-15.4	-14.2	-12.7	-11.5	-12.3	-13.0	-13.0	-13.6	-13.8	-13.3	-14.4	-15.1	-14.5	-13.6	-13.4	-14.1	-15.9	-15.2	-14.3	-14.0	-14.0	-14.4	-13.6	-15.0	-14.4	-13.7
-13.6	-12.1	-13.1	-12.4	-12.8	-13.5	-15.5	-15.2	-14.9	-13.2	-11.9	-14.0	-13.7	-13.0	-14.7	-14.3	-13.9	-14.1	-12.8	-13.1	-13.4	-13.6	-12.9	-9.8	-11.1	-13.8	-11.5	-8.8	-8.9	-9.6	-11.4	-11.5	-12.5	-13.3	-15.3	-15.6
-13.7	-11.4	-11.2	-9.7	-8.5	-10.2	-11.6	-11.2	-10.4	-9.1	-10.5	-9.6	-11.2	-9.3	-9.6	-9.7	-7.7	-6.5	-5.5	-4.2	-2.8	-1.8	-2.2	-3.5	-3.1	-3.8	-4.1	-4.3	-3.0	-2.2	-1.5	-.6	-1.5	-2.4	-7.9	-14.2
-9.3	-9.8	-9.8	-7.5	-5.1	-4.7	-5.2	-4.4	-3.0	-1.3	-3.0	-4.6	-3.5	-2.4	-1.3	-.9	-2.0	-2.8	-2.6	-2.1	-1.2	-2.0	-3.2	-3.3	-3.2	-2.6	-2.5	-2.2	-1.6	-1.0	-.9	-.6	-.8	-1.3	-6.7	-8.8

Figure 42. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS8 (Surface)
NOAA16, using all observations



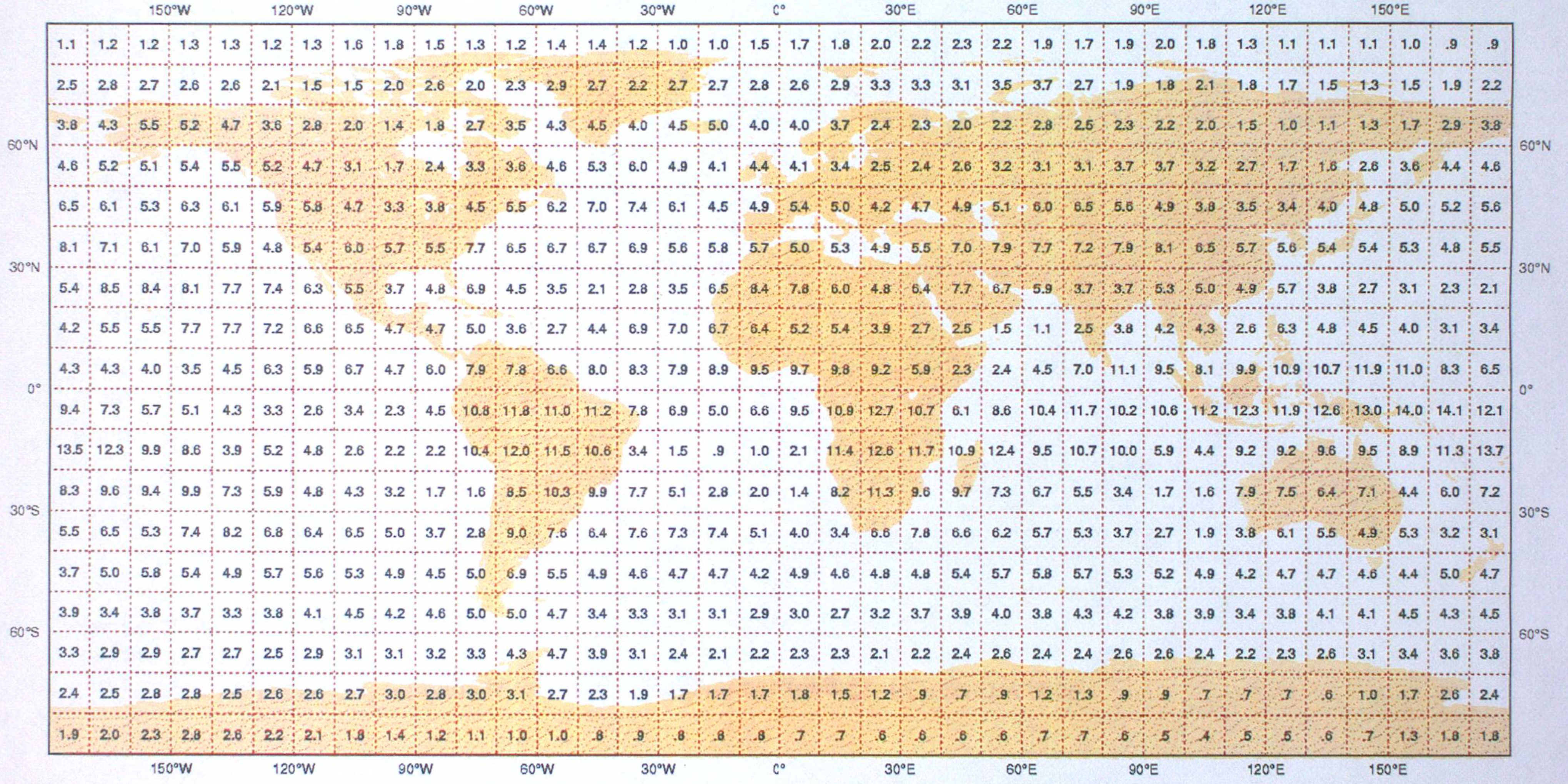
4.9	4.4	4.6	4.7	4.6	4.8	5.4	5.5	5.8	6.6	8.8	6.6	7.7	7.7	8.0	7.5	5.8	5.8	6.0	6.5	7.1	7.4	7.0	7.0	6.5	6.3	6.0	6.1	5.8	4.9	4.9	4.6	4.3	4.3	4.0	4.7
6.4	6.9	6.8	6.1	6.1	5.7	5.9	5.7	5.9	7.5	6.6	8.0	9.1	6.1	5.0	8.7	7.9	8.5	8.3	9.5	10.2	9.8	9.0	10.3	10.4	7.5	5.6	5.8	6.6	5.5	5.8	5.1	5.0	4.9	5.2	5.6
10.6	11.0	13.1	12.8	11.1	8.9	7.3	6.2	5.1	5.6	7.0	9.7	12.4	11.6	11.5	12.4	13.0	11.1	11.6	10.6	7.0	7.0	6.5	6.4	7.8	6.6	6.3	5.9	5.7	4.8	4.8	4.5	5.1	5.7	8.4	10.9
12.9	13.4	13.8	14.0	14.6	13.1	10.9	7.4	5.6	6.3	7.5	9.0	11.8	13.0	14.2	13.0	11.5	11.9	11.5	9.8	7.8	6.7	6.7	8.4	8.3	8.1	9.0	9.5	8.7	7.4	5.8	5.6	9.3	11.7	12.9	13.1
14.9	15.1	14.3	15.8	15.2	15.5	13.9	11.7	9.1	10.5	10.4	13.3	14.9	16.6	17.7	15.3	12.4	13.5	14.3	14.0	12.3	12.8	12.6	12.2	13.8	14.3	13.4	13.1	11.0	10.3	10.2	11.8	12.9	13.0	13.6	14.6
18.3	16.8	15.4	17.2	14.5	12.5	14.3	14.5	14.1	13.4	17.9	16.7	17.1	17.0	17.2	14.9	14.8	14.7	14.4	15.3	14.0	15.6	17.2	18.6	18.4	16.3	16.9	17.2	15.4	15.0	14.7	14.6	13.6	13.5	13.2	14.1
13.1	19.6	19.2	18.6	18.3	17.3	16.0	13.6	10.3	12.5	16.2	11.5	9.0	6.7	7.9	10.1	15.7	20.1	19.7	16.1	13.5	16.9	18.8	17.2	15.1	10.6	8.7	12.9	12.3	11.9	13.7	10.5	8.2	8.6	6.9	7.0
11.3	13.9	13.7	18.1	18.3	17.0	15.6	15.3	11.8	11.7	11.9	9.1	7.6	10.9	16.5	16.9	16.8	16.8	14.4	14.9	10.9	8.3	6.8	4.7	3.1	6.7	10.1	11.1	11.2	7.4	14.2	11.4	11.6	10.8	8.8	9.1
11.1	11.1	10.1	9.4	10.9	14.5	13.5	15.2	11.1	13.5	17.2	17.1	14.9	18.4	18.6	17.7	19.9	20.9	22.7	22.9	21.2	14.6	6.8	6.5	11.1	16.0	23.8	21.2	18.2	21.1	22.8	22.9	24.9	23.5	18.4	15.2
20.7	16.5	13.2	12.1	10.4	8.9	7.1	8.7	6.3	10.7	22.1	23.5	22.4	23.9	17.6	15.3	11.4	14.5	21.8	23.3	26.5	23.4	14.3	19.1	22.3	24.7	22.5	23.5	24.2	25.8	25.4	25.5	25.6	28.7	28.1	24.8
27.3	24.6	21.7	19.7	10.0	13.2	11.8	7.3	6.4	6.2	21.1	24.8	24.8	23.2	8.9	4.6	3.4	3.6	6.2	24.7	26.1	25.0	23.3	25.4	20.4	22.6	21.1	14.0	10.3	19.7	20.9	21.3	20.9	19.5	23.6	27.6
18.5	20.2	20.5	22.0	17.2	13.9	12.0	10.5	8.4	5.7	5.8	19.2	22.6	21.5	17.7	11.8	7.3	5.8	4.4	18.6	24.3	20.2	20.5	15.6	15.5	13.7	9.0	5.7	4.9	17.8	18.5	16.8	17.9	11.0	13.3	15.9
13.3	15.3	13.3	17.2	18.3	16.3	15.5	15.9	12.8	9.9	7.6	20.2	17.6	15.4	18.0	17.3	17.3	13.0	10.7	9.4	15.3	17.0	15.3	15.0	13.6	12.9	10.1	7.7	6.0	9.7	14.4	14.0	13.7	13.2	9.1	8.6
10.6	12.9	13.5	12.4	12.0	13.6	13.5	13.0	12.5	12.0	13.9	17.5	14.3	12.6	11.9	11.9	11.8	11.3	12.4	11.4	11.9	12.0	12.9	13.8	14.0	13.8	13.0	12.8	12.4	11.3	12.2	12.0	11.9	11.9	13.3	13.0
11.1	10.2	10.6	9.8	9.3	10.7	11.5	11.9	11.8	12.5	13.5	14.0	12.2	9.2	9.6	8.8	9.0	8.9	8.8	8.5	9.4	10.5	10.5	10.5	10.4	11.2	11.1	10.6	10.7	10.4	11.3	11.7	11.6	12.1	11.9	12.4
9.7	8.4	8.4	7.9	7.6	7.8	8.6	9.2	9.4	9.5	9.7	12.1	12.1	10.0	8.7	7.9	7.4	7.8	8.4	8.1	7.7	8.6	9.9	10.2	9.6	8.8	9.7	9.8	9.7	8.9	9.2	9.6	10.4	10.7	10.6	10.8
8.3	8.1	8.8	9.4	9.0	9.0	9.0	9.0	9.3	8.9	9.2	9.0	7.7	7.5	7.2	8.1	7.9	6.9	6.3	5.8	5.3	4.2	3.5	3.4	5.0	5.0	3.3	3.5	2.8	2.9	2.9	2.7	3.8	5.9	10.5	9.1
7.1	7.0	7.8	8.9	8.2	7.2	6.5	5.7	4.5	3.7	4.4	5.3	5.2	4.6	4.5	3.9	3.6	3.4	3.1	2.9	2.5	2.4	2.4	2.5	2.7	2.6	2.4	2.0	1.9	2.1	2.6	3.0	3.7	5.5	7.7	7.0

Figure 43. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS15 (700 hPa)
NOAA16, using all observations



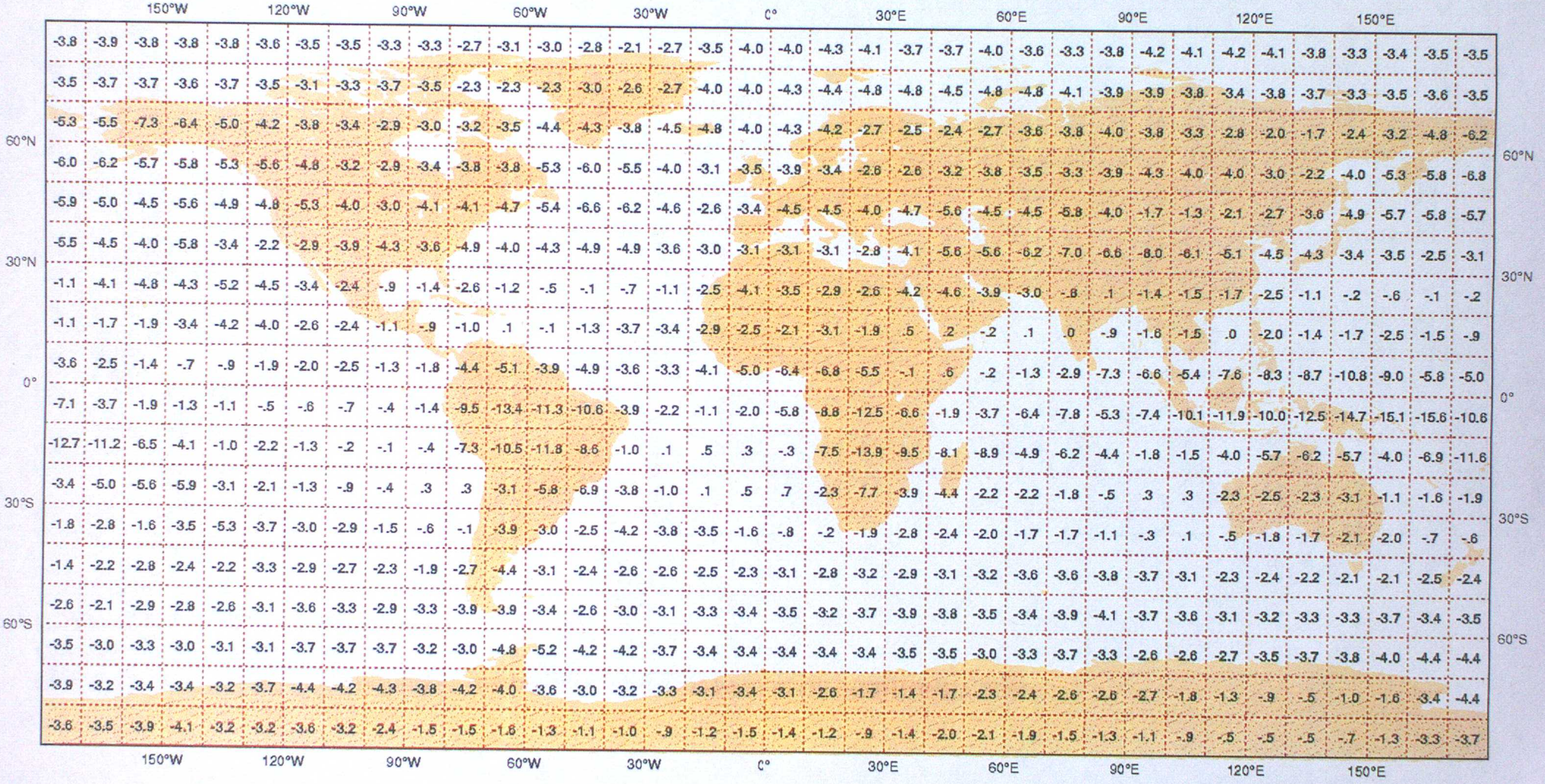
-1.0	-1.1	-1.1	-1.1	-1.1	-1.0	-.9	-.9	-.8	-.7	-.4	-.5	-.5	-.5	-.3	-.5	-.7	-1.1	-1.4	-1.8	-1.8	-1.7	-1.6	-1.8	-1.5	-1.3	-1.6	-1.7	-1.6	-1.6	-1.5	-1.3	-1.1	-1.0	-1.0	-1.0
-1.3	-1.6	-1.7	-1.7	-1.7	-1.4	-1.0	-.9	-1.0	-1.1	-.6	-.7	-.8	-.9	-.7	-1.1	-2.0	-2.7	-3.4	-3.4	-3.3	-3.4	-3.1	-3.0	-2.7	-2.1	-1.7	-1.4	-1.4	-1.1	-1.2	-1.2	-.9	-1.0	-1.1	-1.1
-2.7	-3.2	-4.3	-3.7	-2.9	-2.5	-1.9	-1.1	-.5	-.8	-1.2	-1.7	-2.8	-2.4	-3.1	-4.1	-4.2	-3.8	-4.1	-3.1	-1.6	-1.5	-1.5	-1.4	-1.8	-1.7	-1.6	-1.2	-.9	-.5	-.1	.1	-.3	-.7	-1.7	-2.8
-4.3	-4.7	-4.6	-5.1	-4.5	-4.0	-3.2	-1.8	-.9	-1.1	-1.7	-2.0	-4.2	-5.6	-5.8	-4.7	-3.8	-3.7	-3.7	-3.0	-1.9	-1.7	-2.1	-2.6	-2.4	-2.1	-2.3	-2.1	-1.5	-1.3	-.8	-.4	-2.1	-3.0	-3.8	-4.5
-5.4	-4.6	-4.6	-5.7	-5.3	-4.7	-4.3	-3.3	-2.3	-3.1	-3.1	-4.1	-5.3	-7.1	-7.1	-5.7	-3.6	-3.7	-4.0	-4.0	-3.3	-4.2	-4.6	-4.1	-4.0	-4.7	-2.7	-.6	-.4	-1.0	-1.5	-2.3	-3.6	-4.7	-5.0	-5.0
-6.9	-5.9	-5.2	-7.0	-4.9	-3.2	-2.9	-3.6	-4.2	-4.0	-6.4	-6.0	-6.0	-6.2	-5.7	-4.5	-4.0	-3.5	-3.3	-3.6	-3.7	-4.2	-5.3	-5.1	-5.8	-6.1	-5.1	-6.0	-5.2	-4.6	-4.5	-5.1	-5.1	-5.3	-4.2	-4.5
-3.1	-6.4	-6.9	-6.2	-6.9	-6.0	-4.5	-2.6	-2.0	-2.7	-4.3	-3.0	-2.1	-1.7	-1.9	-2.3	-3.2	-4.6	-3.7	-3.0	-2.4	-3.8	-4.8	-4.4	-3.5	-1.7	-1.2	-3.3	-3.7	-4.2	-5.1	-2.9	-1.9	-2.1	-1.9	-1.9
-3.0	-3.8	-3.8	-5.7	-6.2	-6.2	-4.1	-3.6	-2.3	-2.6	-2.6	-1.9	-1.8	-2.7	-4.6	-4.3	-4.2	-3.9	-2.6	-2.4	-1.2	-.3	-.9	-1.0	-.9	-.9	-1.8	-2.4	-3.2	-1.8	-4.1	-3.0	-3.0	-3.3	-2.6	-2.5
-4.2	-3.6	-2.8	-2.5	-2.6	-3.6	-3.4	-4.2	-3.2	-4.0	-6.5	-6.1	-5.7	-7.1	-6.7	-5.9	-6.3	-6.8	-7.2	-7.2	-6.3	-2.8	-1.0	-1.5	-2.6	-4.2	-8.8	-7.6	-6.8	-9.0	-10.1	-10.0	-11.1	-9.8	-6.9	-5.6
-8.8	-5.3	-3.2	-2.8	-2.4	-2.0	-1.8	-2.2	-2.0	-4.1	-12.3	-15.5	-13.7	-11.1	-5.0	-3.6	-2.6	-3.6	-7.6	-11.4	-13.9	-7.8	-3.5	-5.8	-8.5	-9.5	-7.2	-8.7	-11.1	-13.0	-11.0	-13.8	-15.8	-16.3	-17.1	-12.6
-14.3	-13.8	-8.8	-6.0	-2.1	-3.3	-2.7	-1.7	-1.6	-1.9	-8.1	-11.4	-12.2	-9.3	-1.9	-1.0	-1.0	-1.1	-1.6	-9.3	-14.9	-10.1	-9.0	-10.3	-6.8	-7.4	-6.1	-3.4	-2.5	-4.9	-6.4	-6.5	-6.4	-6.1	-8.5	-12.9
-5.5	-7.4	-8.1	-8.1	-4.7	-3.2	-2.6	-2.3	-2.0	-1.7	-1.4	-3.9	-7.5	-9.3	-5.6	-2.6	-1.6	-1.2	-1.2	-3.9	-10.0	-6.0	-5.6	-3.6	-4.1	-3.5	-2.1	-1.5	-1.5	-3.6	-5.1	-3.3	-3.6	-2.3	-3.3	-3.9
-3.7	-5.4	-3.8	-5.4	-7.6	-6.1	-5.0	-4.7	-3.4	-2.2	-1.3	-4.1	-4.4	-4.3	-6.1	-5.9	-5.6	-3.4	-2.5	-1.7	-3.3	-4.8	-4.0	-3.8	-3.4	-3.2	-2.4	-1.9	-1.5	-1.7	-3.0	-2.9	-2.1	-3.0	-2.1	-1.6
-2.7	-3.8	-4.6	-4.1	-3.7	-4.6	-4.4	-4.0	-3.6	-3.2	-3.7	-4.5	-4.0	-3.6	-3.5	-3.6	-3.6	-3.2	-4.0	-4.0	-4.2	-4.1	-4.0	-4.3	-4.7	-4.7	-4.7	-4.7	-4.1	-3.4	-3.5	-3.4	-3.3	-3.3	-3.8	-3.2
-3.3	-2.9	-3.5	-3.4	-3.3	-3.7	-4.2	-4.0	-3.5	-3.9	-4.5	-4.1	-3.7	-2.9	-3.0	-3.1	-3.0	-3.0	-3.1	-2.9	-3.4	-3.7	-3.6	-3.4	-3.3	-3.6	-3.9	-3.7	-3.5	-3.2	-3.4	-3.7	-3.7	-4.3	-4.1	-4.0
-3.2	-2.7	-3.1	-2.7	-2.8	-2.9	-3.5	-3.6	-3.6	-3.3	-2.9	-3.9	-3.9	-3.2	-3.2	-2.8	-2.5	-2.7	-2.6	-2.6	-2.6	-2.6	-2.5	-1.9	-2.0	-2.6	-2.2	-1.7	-1.7	-1.7	-2.3	-2.4	-2.8	-3.1	-3.7	-3.9
-2.5	-2.1	-2.3	-2.0	-1.8	-2.3	-2.9	-2.8	-2.8	-2.5	-2.7	-2.3	-2.1	-1.5	-1.4	-1.5	-1.2	-1.2	-1.0	-.7	-.3	.0	.0	-.3	-.4	-.7	-.6	-.5	-.1	.1	.2	.4	.2	-.2	-1.5	-2.6
-1.3	-1.3	-1.5	-1.5	-1.0	-.9	-1.1	-.9	-.4	.0	.0	.0	.2	.3	.4	.4	.3	.2	.3	.3	.5	.3	.2	.2	.2	.3	.4	.4	.5	.6	.6	.6	.5	.2	-.8	-1.2

Figure 44. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS15 (700 hPa)
NOAA16, using all observations



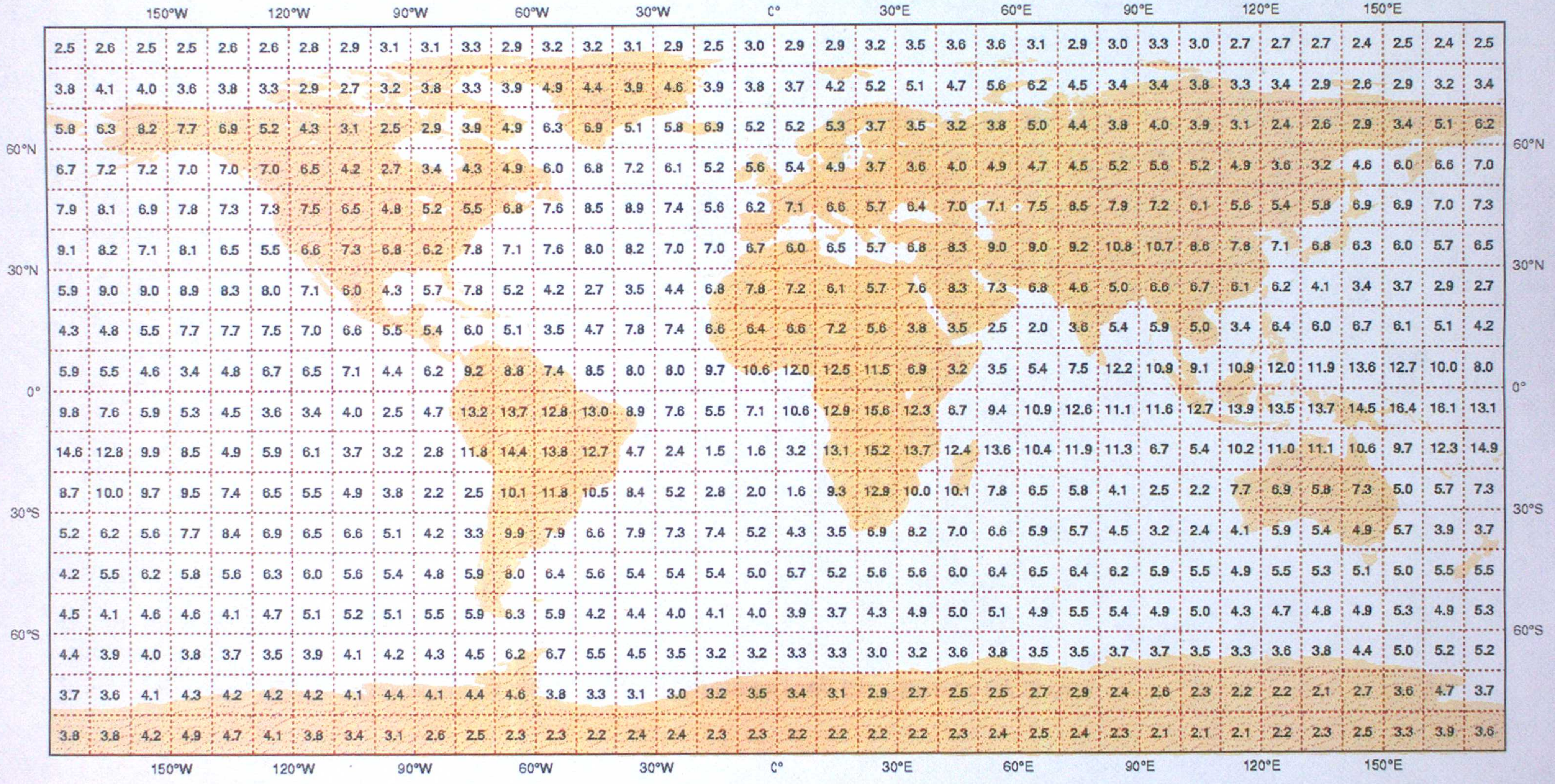
1.1	1.2	1.2	1.3	1.3	1.2	1.3	1.6	1.8	1.5	1.3	1.2	1.4	1.4	1.2	1.0	1.0	1.5	1.7	1.8	2.0	2.2	2.3	2.2	1.9	1.7	1.9	2.0	1.8	1.3	1.1	1.1	1.1	1.0	.9	.9
2.5	2.8	2.7	2.6	2.6	2.1	1.5	1.5	2.0	2.6	2.0	2.3	2.9	2.7	2.2	2.7	2.7	2.8	2.6	2.9	3.3	3.3	3.1	3.5	3.7	2.7	1.9	1.8	2.1	1.8	1.7	1.5	1.3	1.5	1.9	2.2
3.8	4.3	5.5	5.2	4.7	3.6	2.8	2.0	1.4	1.8	2.7	3.5	4.3	4.5	4.0	4.5	5.0	4.0	4.0	3.7	2.4	2.3	2.0	2.2	2.8	2.5	2.3	2.2	2.0	1.5	1.0	1.1	1.3	1.7	2.9	3.8
4.6	5.2	5.1	5.4	5.5	5.2	4.7	3.1	1.7	2.4	3.3	3.6	4.6	5.3	6.0	4.9	4.1	4.4	4.1	3.4	2.5	2.4	2.6	3.2	3.1	3.1	3.7	3.7	3.2	2.7	1.7	1.6	2.6	3.6	4.4	4.6
6.5	6.1	5.3	6.3	6.1	5.9	5.8	4.7	3.3	3.8	4.5	5.5	6.2	7.0	7.4	6.1	4.5	4.9	5.4	5.0	4.2	4.7	4.9	5.1	6.0	6.5	5.6	4.9	3.8	3.5	3.4	4.0	4.8	5.0	5.2	5.6
8.1	7.1	6.1	7.0	5.9	4.8	5.4	6.0	5.7	5.5	7.7	6.5	6.7	6.7	6.9	5.6	5.8	5.7	5.0	5.3	4.9	5.5	7.0	7.9	7.7	7.2	7.9	8.1	6.5	5.7	5.6	5.4	5.4	5.3	4.8	5.5
5.4	8.5	8.4	8.1	7.7	7.4	6.3	5.5	3.7	4.8	6.9	4.5	3.5	2.1	2.8	3.5	6.5	8.4	7.8	6.0	4.8	6.4	7.7	6.7	5.9	3.7	3.7	5.3	5.0	4.9	5.7	3.8	2.7	3.1	2.3	2.1
4.2	5.5	5.5	7.7	7.7	7.2	6.6	6.5	4.7	4.7	5.0	3.6	2.7	4.4	6.9	7.0	6.7	6.4	5.2	5.4	3.9	2.7	2.5	1.5	1.1	2.5	3.8	4.2	4.3	2.6	6.3	4.8	4.5	4.0	3.1	3.4
4.3	4.3	4.0	3.5	4.5	6.3	5.9	6.7	4.7	6.0	7.9	7.8	6.6	8.0	8.3	7.9	8.9	9.5	9.7	9.8	9.2	5.9	2.3	2.4	4.5	7.0	11.1	9.5	8.1	9.9	10.9	10.7	11.9	11.0	8.3	6.5
9.4	7.3	5.7	5.1	4.3	3.3	2.6	3.4	2.3	4.5	10.8	11.8	11.0	11.2	7.8	6.9	5.0	6.6	9.5	10.9	12.7	10.7	6.1	8.6	10.4	11.7	10.2	10.6	11.2	12.3	11.9	12.6	13.0	14.0	14.1	12.1
13.5	12.3	9.9	8.6	3.9	5.2	4.8	2.6	2.2	2.2	10.4	12.0	11.5	10.6	3.4	1.5	.9	1.0	2.1	11.4	12.6	11.7	10.9	12.4	9.5	10.7	10.0	5.9	4.4	9.2	9.2	9.6	9.5	8.9	11.3	13.7
8.3	9.6	9.4	9.9	7.3	5.9	4.8	4.3	3.2	1.7	1.6	8.5	10.3	9.9	7.7	5.1	2.8	2.0	1.4	8.2	11.3	9.6	9.7	7.3	6.7	5.5	3.4	1.7	1.6	7.9	7.5	6.4	7.1	4.4	6.0	7.2
5.5	6.5	5.3	7.4	8.2	6.8	6.4	6.5	5.0	3.7	2.8	9.0	7.6	6.4	7.6	7.3	7.4	5.1	4.0	3.4	6.6	7.8	6.6	6.2	5.7	5.3	3.7	2.7	1.9	3.8	6.1	5.5	4.9	5.3	3.2	3.1
3.7	5.0	5.8	5.4	4.9	5.7	5.6	5.3	4.9	4.5	5.0	6.9	5.5	4.9	4.6	4.7	4.7	4.2	4.9	4.6	4.8	4.8	5.4	5.7	5.8	5.7	5.3	5.2	4.9	4.2	4.7	4.7	4.6	4.4	5.0	4.7
3.9	3.4	3.8	3.7	3.3	3.8	4.1	4.5	4.2	4.6	5.0	5.0	4.7	3.4	3.3	3.1	3.1	2.9	3.0	2.7	3.2	3.7	3.9	4.0	3.8	4.3	4.2	3.8	3.9	3.4	3.8	4.1	4.1	4.5	4.3	4.5
3.3	2.9	2.9	2.7	2.7	2.5	2.9	3.1	3.1	3.2	3.3	4.3	4.7	3.9	3.1	2.4	2.1	2.2	2.3	2.3	2.1	2.2	2.4	2.6	2.4	2.4	2.6	2.6	2.4	2.2	2.3	2.6	3.1	3.4	3.6	3.8
2.4	2.5	2.8	2.8	2.5	2.6	2.6	2.7	3.0	2.8	3.0	3.1	2.7	2.3	1.9	1.7	1.7	1.7	1.8	1.5	1.2	.9	.7	.9	1.2	1.3	.9	.9	.7	.7	.7	.6	1.0	1.7	2.6	2.4
1.9	2.0	2.3	2.8	2.6	2.2	2.1	1.8	1.4	1.2	1.1	1.0	1.0	.8	.9	.8	.8	.8	.7	.7	.6	.6	.6	.6	.7	.7	.6	.5	.4	.5	.5	.6	.7	1.3	1.8	1.8

Figure 45. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS11 (500 - 700 hPa)
NOAA16, using all observations



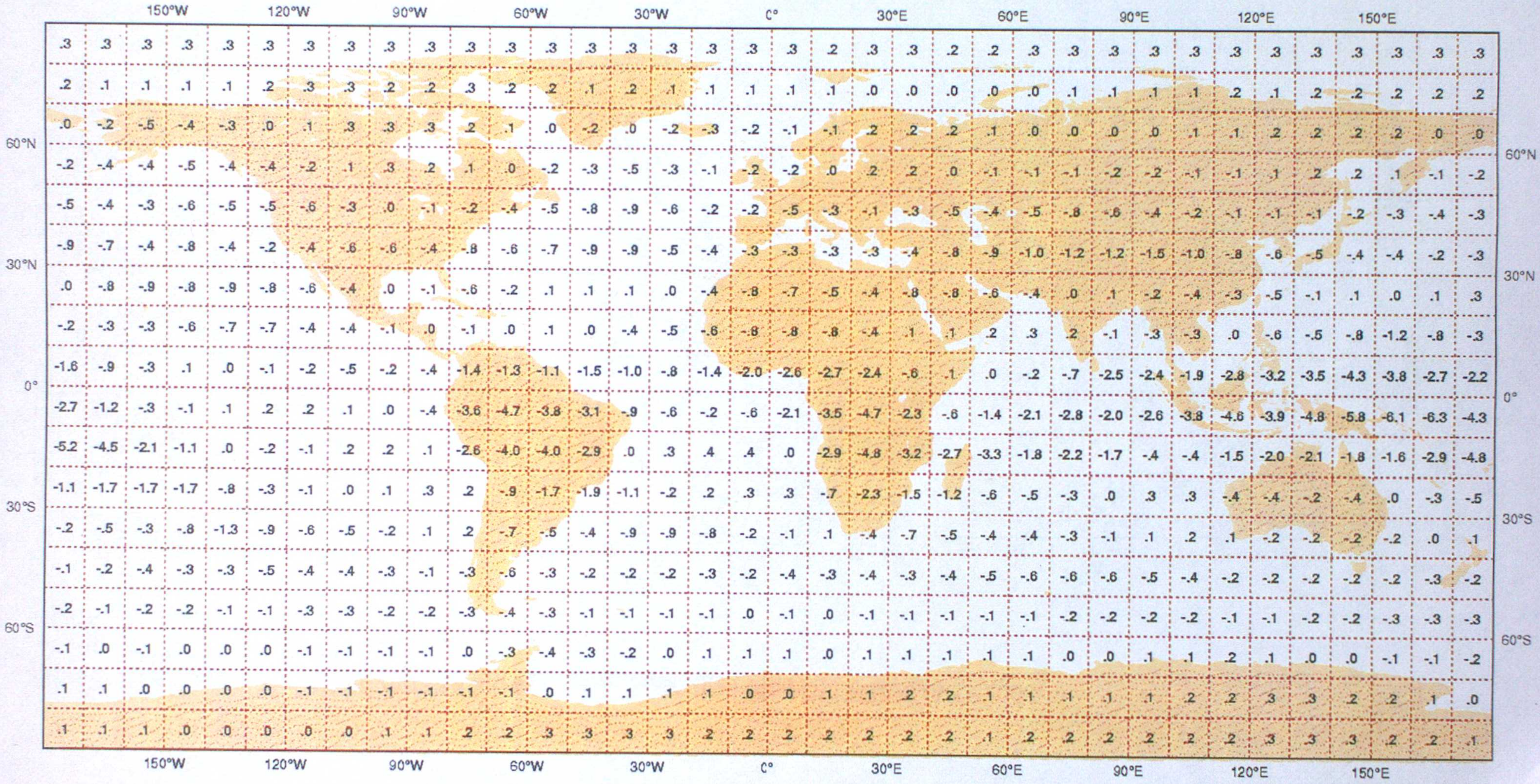
-3.8	-3.9	-3.8	-3.8	-3.8	-3.6	-3.5	-3.5	-3.3	-3.3	-2.7	-3.1	-3.0	-2.8	-2.1	-2.7	-3.5	-4.0	-4.0	-4.3	-4.1	-3.7	-3.7	-4.0	-3.6	-3.3	-3.8	-4.2	-4.1	-4.2	-4.1	-3.8	-3.3	-3.4	-3.5	-3.5
-3.5	-3.7	-3.7	-3.6	-3.7	-3.5	-3.1	-3.3	-3.7	-3.5	-2.3	-2.3	-2.3	-3.0	-2.6	-2.7	-4.0	-4.0	-4.3	-4.4	-4.8	-4.8	-4.5	-4.8	-4.8	-4.1	-3.9	-3.9	-3.8	-3.4	-3.8	-3.7	-3.3	-3.5	-3.6	-3.5
-5.3	-5.5	-7.3	-6.4	-5.0	-4.2	-3.8	-3.4	-2.9	-3.0	-3.2	-3.5	-4.4	-4.3	-3.8	-4.5	-4.8	-4.0	-4.3	-4.2	-2.7	-2.5	-2.4	-2.7	-3.6	-3.8	-4.0	-3.8	-3.3	-2.8	-2.0	-1.7	-2.4	-3.2	-4.8	-6.2
-6.0	-6.2	-5.7	-5.8	-5.3	-5.6	-4.8	-3.2	-2.9	-3.4	-3.8	-3.8	-5.3	-6.0	-5.5	-4.0	-3.1	-3.5	-3.9	-3.4	-2.6	-2.6	-3.2	-3.8	-3.5	-3.3	-3.9	-4.3	-4.0	-4.0	-3.0	-2.2	-4.0	-5.3	-5.8	-6.8
-5.9	-5.0	-4.5	-5.6	-4.9	-4.8	-5.3	-4.0	-3.0	-4.1	-4.1	-4.7	-5.4	-6.6	-6.2	-4.6	-2.6	-3.4	-4.5	-4.5	-4.0	-4.7	-5.6	-4.5	-4.5	-5.8	-4.0	-1.7	-1.3	-2.1	-2.7	-3.6	-4.9	-5.7	-5.8	-5.7
-5.5	-4.5	-4.0	-5.8	-3.4	-2.2	-2.9	-3.9	-4.3	-3.6	-4.9	-4.0	-4.3	-4.9	-4.9	-3.6	-3.0	-3.1	-3.1	-3.1	-2.8	-4.1	-5.6	-5.6	-6.2	-7.0	-6.6	-8.0	-6.1	-5.1	-4.5	-4.3	-3.4	-3.5	-2.5	-3.1
-1.1	-4.1	-4.8	-4.3	-5.2	-4.5	-3.4	-2.4	-.9	-1.4	-2.6	-1.2	-.5	-.1	-.7	-1.1	-2.5	-4.1	-3.5	-2.9	-2.6	-4.2	-4.6	-3.9	-3.0	-.8	.1	-1.4	-1.5	-1.7	-2.5	-1.1	-.2	-.6	-.1	-.2
-1.1	-1.7	-1.9	-3.4	-4.2	-4.0	-2.6	-2.4	-1.1	-.9	-1.0	.1	-.1	-1.3	-3.7	-3.4	-2.9	-2.5	-2.1	-3.1	-1.9	.5	.2	-.2	.1	.0	-.9	-1.6	-1.5	.0	-2.0	-1.4	-1.7	-2.5	-1.5	-.9
-3.6	-2.5	-1.4	-.7	-.9	-1.9	-2.0	-2.5	-1.3	-1.8	-4.4	-5.1	-3.9	-4.9	-3.6	-3.3	-4.1	-5.0	-6.4	-6.8	-5.5	-.1	.6	-.2	-1.3	-2.9	-7.3	-6.6	-5.4	-7.6	-8.3	-8.7	-10.8	-9.0	-5.8	-5.0
-7.1	-3.7	-1.9	-1.3	-1.1	-.5	-.6	-.7	-.4	-1.4	-9.5	-13.4	-11.3	-10.6	-3.9	-2.2	-1.1	-2.0	-5.8	-8.8	-12.5	-6.6	-1.9	-3.7	-6.4	-7.8	-5.3	-7.4	-10.1	-11.9	-10.0	-12.5	-14.7	-15.1	-15.6	-10.6
-12.7	-11.2	-6.5	-4.1	-1.0	-2.2	-1.3	-.2	-.1	-.4	-7.3	-10.5	-11.8	-8.6	-1.0	.1	.5	.3	-.3	-7.5	-13.9	-9.5	-8.1	-8.9	-4.9	-6.2	-4.4	-1.8	-1.5	-4.0	-5.7	-6.2	-5.7	-4.0	-6.9	-11.6
-3.4	-5.0	-5.6	-5.9	-3.1	-2.1	-1.3	-.9	-.4	.3	.3	-3.1	-5.8	-6.9	-3.8	-1.0	.1	.5	.7	-2.3	-7.7	-3.9	-4.4	-2.2	-2.2	-1.8	-.5	.3	.3	-2.3	-2.5	-2.3	-3.1	-1.1	-1.6	-1.9
-1.8	-2.8	-1.6	-3.5	-5.3	-3.7	-3.0	-2.9	-1.5	-.6	-.1	-3.9	-3.0	-2.5	-4.2	-3.8	-3.5	-1.6	-.8	-.2	-1.9	-2.8	-2.4	-2.0	-1.7	-1.7	-1.1	-.3	.1	-.5	-1.8	-1.7	-2.1	-2.0	-.7	-.6
-1.4	-2.2	-2.8	-2.4	-2.2	-3.3	-2.9	-2.7	-2.3	-1.9	-2.7	-4.4	-3.1	-2.4	-2.6	-2.6	-2.5	-2.3	-3.1	-2.8	-3.2	-2.9	-3.1	-3.2	-3.6	-3.6	-3.8	-3.7	-3.1	-2.3	-2.4	-2.2	-2.1	-2.1	-2.5	-2.4
-2.6	-2.1	-2.9	-2.8	-2.6	-3.1	-3.6	-3.3	-2.9	-3.3	-3.9	-3.9	-3.4	-2.6	-3.0	-3.1	-3.3	-3.4	-3.5	-3.2	-3.7	-3.9	-3.8	-3.5	-3.4	-3.9	-4.1	-3.7	-3.6	-3.1	-3.2	-3.3	-3.3	-3.7	-3.4	-3.5
-3.5	-3.0	-3.3	-3.0	-3.1	-3.1	-3.7	-3.7	-3.7	-3.2	-3.0	-4.8	-5.2	-4.2	-4.2	-3.7	-3.4	-3.4	-3.4	-3.4	-3.4	-3.5	-3.5	-3.0	-3.3	-3.7	-3.3	-2.6	-2.6	-2.7	-3.5	-3.7	-3.8	-4.0	-4.4	-4.4
-3.9	-3.2	-3.4	-3.4	-3.2	-3.7	-4.4	-4.2	-4.3	-3.8	-4.2	-4.0	-3.6	-3.0	-3.2	-3.3	-3.1	-3.4	-3.1	-2.6	-1.7	-1.4	-1.7	-2.3	-2.4	-2.6	-2.6	-2.7	-1.8	-1.3	-.9	-.5	-1.0	-1.6	-3.4	-4.4
-3.6	-3.5	-3.9	-4.1	-3.2	-3.2	-3.6	-3.2	-2.4	-1.5	-1.5	-1.6	-1.3	-1.1	-1.0	-.9	-1.2	-1.5	-1.4	-1.2	-.9	-1.4	-2.0	-2.1	-1.9	-1.5	-1.3	-1.1	-.9	-.5	-.5	-.5	-.7	-1.3	-3.3	-3.7

Figure 46. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS11 (500 - 700 hPa)
NOAA16, using all observations



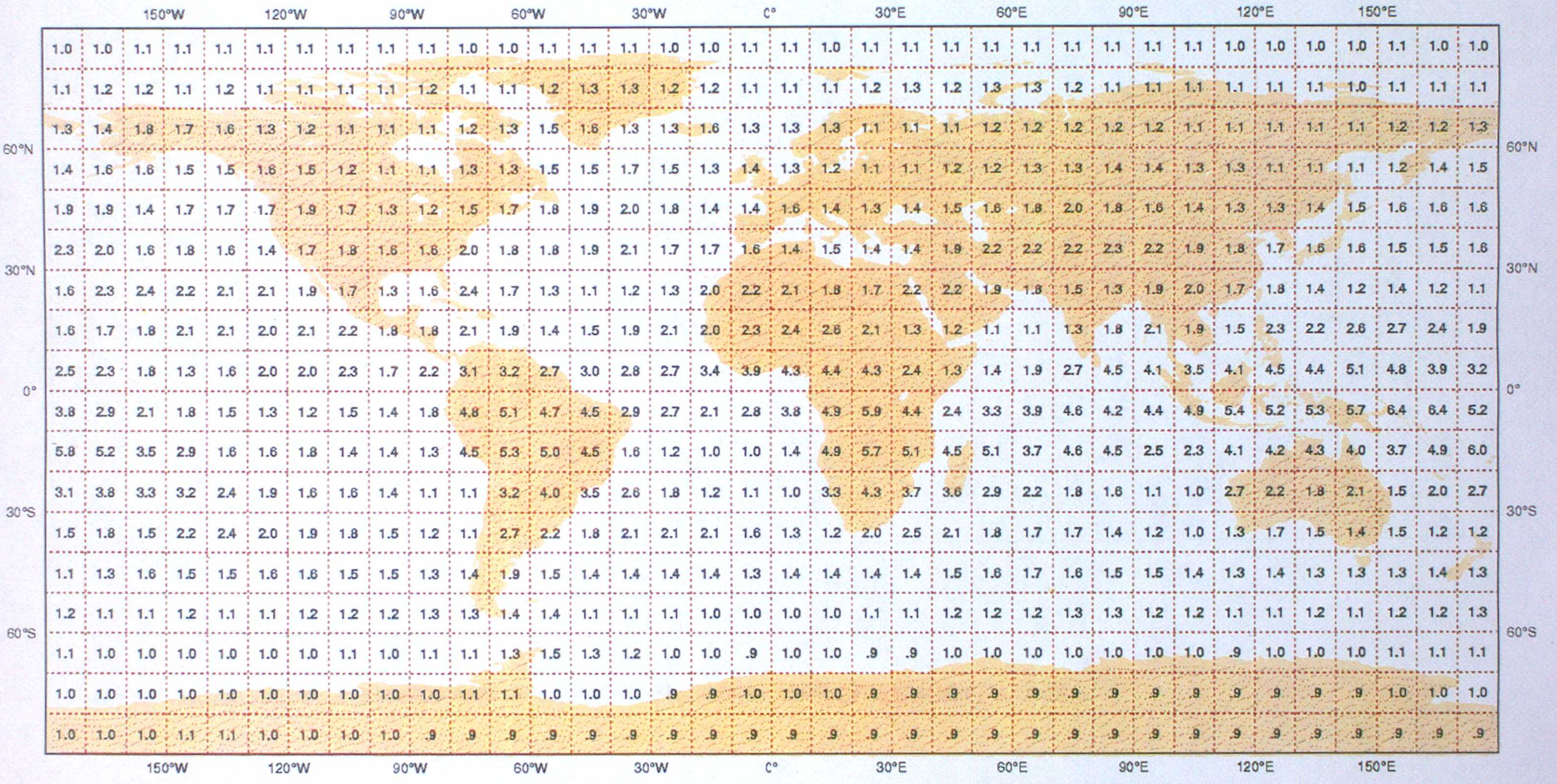
2.5	2.6	2.5	2.5	2.6	2.6	2.8	2.9	3.1	3.1	3.3	2.9	3.2	3.2	3.1	2.9	2.5	3.0	2.9	2.9	3.2	3.5	3.6	3.6	3.1	2.9	3.0	3.3	3.0	2.7	2.7	2.7	2.4	2.5	2.4	2.5
3.8	4.1	4.0	3.6	3.8	3.3	2.9	2.7	3.2	3.8	3.3	3.9	4.9	4.4	3.9	4.6	3.9	3.8	3.7	4.2	5.2	5.1	4.7	5.6	6.2	4.5	3.4	3.4	3.8	3.3	3.4	2.9	2.6	2.9	3.2	3.4
5.8	6.3	8.2	7.7	6.9	5.2	4.3	3.1	2.5	2.9	3.9	4.9	6.3	6.9	5.1	5.8	6.9	5.2	5.2	5.3	3.7	3.5	3.2	3.8	5.0	4.4	3.8	4.0	3.9	3.1	2.4	2.6	2.9	3.4	5.1	6.2
6.7	7.2	7.2	7.0	7.0	7.0	6.5	4.2	2.7	3.4	4.3	4.9	6.0	6.8	7.2	6.1	5.2	5.6	5.4	4.9	3.7	3.6	4.0	4.9	4.7	4.5	5.2	5.6	5.2	4.9	3.6	3.2	4.6	6.0	6.6	7.0
7.9	8.1	6.9	7.8	7.3	7.3	7.5	6.5	4.8	5.2	5.5	6.8	7.6	8.5	8.9	7.4	5.6	6.2	7.1	6.6	5.7	6.4	7.0	7.1	7.5	8.5	7.9	7.2	6.1	5.6	5.4	5.8	6.9	6.9	7.0	7.3
9.1	8.2	7.1	8.1	6.5	5.5	6.6	7.3	6.8	6.2	7.8	7.1	7.6	8.0	8.2	7.0	7.0	6.7	6.0	6.5	5.7	6.8	8.3	9.0	9.0	9.2	10.8	10.7	8.6	7.8	7.1	6.8	6.3	6.0	5.7	6.5
5.9	9.0	9.0	8.9	8.3	8.0	7.1	6.0	4.3	5.7	7.8	5.2	4.2	2.7	3.5	4.4	6.8	7.8	7.2	6.1	5.7	7.6	8.3	7.3	6.8	4.6	5.0	6.6	6.7	6.1	6.2	4.1	3.4	3.7	2.9	2.7
4.3	4.8	5.5	7.7	7.7	7.5	7.0	6.6	5.5	5.4	6.0	5.1	3.5	4.7	7.8	7.4	6.6	6.4	6.6	7.2	5.6	3.8	3.5	2.5	2.0	3.6	5.4	5.9	5.0	3.4	6.4	6.0	6.7	6.1	5.1	4.2
5.9	5.5	4.6	3.4	4.8	6.7	6.5	7.1	4.4	6.2	9.2	8.8	7.4	8.5	8.0	8.0	9.7	10.6	12.0	12.5	11.5	6.9	3.2	3.5	5.4	7.5	12.2	10.9	9.1	10.9	12.0	11.9	13.6	12.7	10.0	8.0
9.8	7.6	5.9	5.3	4.5	3.6	3.4	4.0	2.5	4.7	13.2	13.7	12.8	13.0	8.9	7.6	5.5	7.1	10.6	12.9	15.6	12.3	6.7	9.4	10.9	12.6	11.1	11.6	12.7	13.9	13.5	13.7	14.5	16.4	16.1	13.1
14.6	12.8	9.9	8.5	4.9	5.9	6.1	3.7	3.2	2.8	11.8	14.4	13.8	12.7	4.7	2.4	1.5	1.6	3.2	13.1	15.2	13.7	12.4	13.6	10.4	11.9	11.3	6.7	5.4	10.2	11.0	11.1	10.6	9.7	12.3	14.9
8.7	10.0	9.7	9.5	7.4	6.5	5.5	4.9	3.8	2.2	2.5	10.1	11.8	10.5	8.4	5.2	2.8	2.0	1.6	9.3	12.9	10.0	10.1	7.8	6.5	5.8	4.1	2.5	2.2	7.7	6.9	5.8	7.3	5.0	5.7	7.3
5.2	6.2	5.6	7.7	8.4	6.9	6.5	6.6	5.1	4.2	3.3	9.9	7.9	6.6	7.9	7.3	7.4	5.2	4.3	3.5	6.9	8.2	7.0	6.6	5.9	5.7	4.5	3.2	2.4	4.1	5.9	5.4	4.9	5.7	3.9	3.7
4.2	5.5	6.2	5.8	5.6	6.3	6.0	5.6	5.4	4.8	5.9	8.0	6.4	5.6	5.4	5.4	5.4	5.0	5.7	5.2	5.6	5.6	6.0	6.4	6.5	6.4	6.2	5.9	5.5	4.9	5.5	5.3	5.1	5.0	5.5	5.5
4.5	4.1	4.6	4.6	4.1	4.7	5.1	5.2	5.1	5.5	5.9	6.3	5.9	4.2	4.4	4.0	4.1	4.0	3.9	3.7	4.3	4.9	5.0	5.1	4.9	5.5	5.4	4.9	5.0	4.3	4.7	4.8	4.9	5.3	4.9	5.3
4.4	3.9	4.0	3.8	3.7	3.5	3.9	4.1	4.2	4.3	4.5	6.2	6.7	5.5	4.5	3.5	3.2	3.2	3.3	3.3	3.0	3.2	3.6	3.8	3.5	3.5	3.7	3.7	3.5	3.3	3.6	3.8	4.4	5.0	5.2	5.2
3.7	3.6	4.1	4.3	4.2	4.2	4.2	4.1	4.4	4.1	4.4	4.6	3.8	3.3	3.1	3.0	3.2	3.5	3.4	3.1	2.9	2.7	2.5	2.5	2.7	2.9	2.4	2.6	2.3	2.2	2.2	2.1	2.7	3.6	4.7	3.7
3.8	3.8	4.2	4.9	4.7	4.1	3.8	3.4	3.1	2.6	2.5	2.3	2.3	2.2	2.4	2.4	2.3	2.3	2.2	2.2	2.2	2.2	2.3	2.4	2.5	2.4	2.3	2.1	2.1	2.1	2.2	2.3	2.5	3.3	3.9	3.6

Figure 47. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS4 (400 hPa)
NOAA16, using all observations



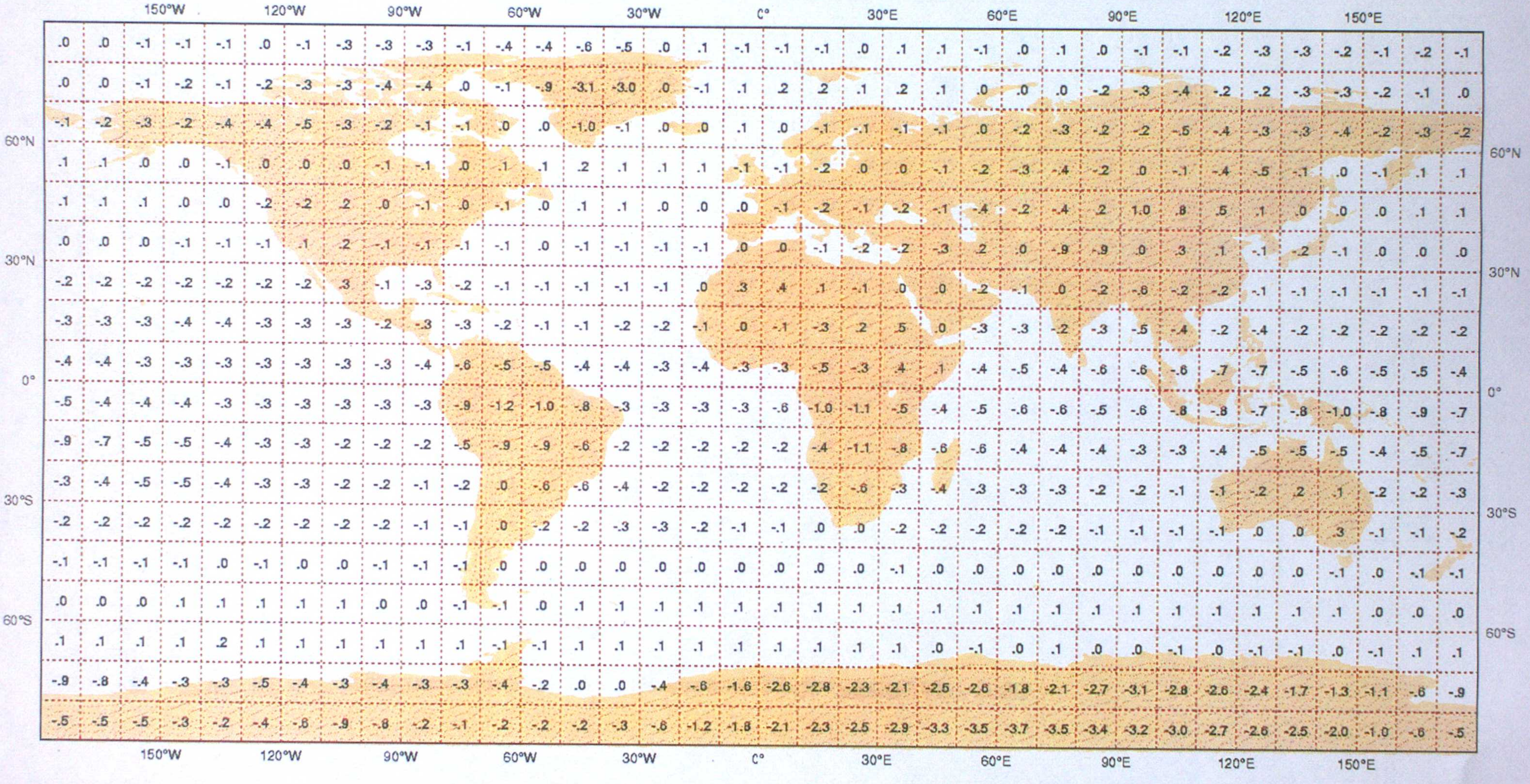
.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.2	.3	.3	.2	.2	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
.2	.1	.1	.1	.1	.2	.3	.3	.2	.2	.3	.2	.2	.1	.2	.1	.1	.1	.1	.1	.0	.0	.0	.0	.0	.1	.1	.1	.1	.2	.1	.2	.2	.2	.2	.2
.0	-.2	-.5	-.4	-.3	.0	.1	.3	.3	.3	.2	.1	.0	-.2	.0	-.2	-.3	-.2	-.1	-.1	.2	.2	.2	.1	.0	.0	.0	.0	.1	.1	.2	.2	.2	.2	.0	.0
-.2	-.4	-.4	-.5	-.4	-.4	-.2	.1	.3	.2	.1	.0	-.2	-.3	-.5	-.3	-.1	-.2	-.2	.0	.2	.2	.0	-.1	-.1	-.1	-.2	-.2	-.1	-.1	.1	.2	.2	.1	-.1	-.2
-.5	-.4	-.3	-.6	-.5	-.5	-.6	-.3	.0	-.1	-.2	-.4	-.5	-.8	-.9	-.6	-.2	-.2	-.5	-.3	-.1	-.3	-.5	-.4	-.5	-.8	-.6	-.4	-.2	-.1	-.1	-.1	-.2	-.3	-.4	-.3
-.9	-.7	-.4	-.8	-.4	-.2	-.4	-.6	-.6	-.4	-.8	-.6	-.7	-.9	-.9	-.5	-.4	-.3	-.3	-.3	-.3	-.4	-.8	-.9	-1.0	-1.2	-1.2	-1.5	-1.0	-.8	-.6	-.5	-.4	-.4	-.2	-.3
.0	-.8	-.9	-.8	-.9	-.8	-.6	-.4	.0	-.1	-.6	-.2	.1	.1	.1	.0	-.4	-.8	-.7	-.5	-.4	-.8	-.8	-.6	-.4	.0	.1	-.2	-.4	-.3	-.5	-.1	.1	.0	.1	.3
-.2	-.3	-.3	-.6	-.7	-.7	-.4	-.4	-.1	.0	-.1	.0	.1	.0	-.4	-.5	-.6	-.8	-.8	-.8	-.4	.1	.1	.2	.3	.2	-.1	-.3	-.3	.0	-.6	-.5	-.8	-1.2	-.8	-.3
-1.6	-.9	-.3	.1	.0	-.1	-.2	-.5	-.2	-.4	-1.4	-1.3	-1.1	-1.5	-1.0	-.8	-1.4	-2.0	-2.6	-2.7	-2.4	-.6	.1	.0	-.2	-.7	-2.5	-2.4	-1.9	-2.8	-3.2	-3.5	-4.3	-3.8	-2.7	-2.2
-2.7	-1.2	-.3	-.1	.1	.2	.2	.1	.0	-.4	-3.6	-4.7	-3.8	-3.1	-.9	-.6	-.2	-.6	-2.1	-3.5	-4.7	-2.3	-.6	-1.4	-2.1	-2.8	-2.0	-2.6	-3.8	-4.6	-3.9	-4.8	-5.8	-6.1	-6.3	-4.3
-5.2	-4.5	-2.1	-1.1	.0	-.2	-.1	.2	.2	.1	-2.6	-4.0	-4.0	-2.9	.0	.3	.4	.4	.0	-2.9	-4.8	-3.2	-2.7	-3.3	-1.8	-2.2	-1.7	-.4	-.4	-1.5	-2.0	-2.1	-1.8	-1.6	-2.9	-4.8
-1.1	-1.7	-1.7	-1.7	-.8	-.3	-.1	.0	.1	.3	.2	-.9	-1.7	-1.9	-1.1	-.2	.2	.3	.3	-.7	-2.3	-1.5	-1.2	-.6	-.5	-.3	.0	.3	.3	-.4	-.4	-.2	-.4	.0	-.3	-.5
-.2	-.5	-.3	-.8	-1.3	-.9	-.6	-.5	-.2	.1	.2	-.7	-.5	-.4	-.9	-.9	-.8	-.2	-.1	.1	-.4	-.7	-.5	-.4	-.4	-.3	-.1	.1	.2	.1	-.2	-.2	-.2	-.2	.0	.1
-.1	-.2	-.4	-.3	-.3	-.5	-.4	-.4	-.3	-.1	-.3	-.6	-.3	-.2	-.2	-.2	-.3	-.2	-.4	-.3	-.4	-.3	-.4	-.5	-.6	-.6	-.6	-.5	-.4	-.2	-.2	-.2	-.2	-.2	-.3	-.2
-.2	-.1	-.2	-.2	-.1	-.1	-.3	-.3	-.2	-.2	-.3	-.4	-.3	-.1	-.1	-.1	-.1	.0	-.1	.0	-.1	-.1	-.1	-.1	-.1	-.2	-.2	-.2	-.2	-.1	-.1	-.2	-.2	-.3	-.3	-.3
-.1	.0	-.1	.0	.0	.0	-.1	-.1	-.1	-.1	.0	-.3	-.4	-.3	-.2	.0	.1	.1	.1	.0	.1	.1	.1	.1	.1	.0	.0	.1	.1	.2	.1	.0	.0	-.1	-.1	-.2
.1	.1	.0	.0	.0	.0	-.1	-.1	-.1	-.1	-.1	-.1	.0	.1	.1	.1	.1	.0	.0	.1	.1	.2	.2	.1	.1	.1	.1	.1	.2	.2	.3	.3	.2	.2	.1	.0
.1	.1	.1	.0	.0	.0	.0	.0	.1	.1	.2	.2	.3	.3	.3	.3	.2	.2	.2	.2	.2	.2	.2	.1	.2	.2	.2	.2	.2	.2	.3	.3	.3	.2	.2	.1

Figure 48. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS4 (400 hPa)
NOAA16, using all observations



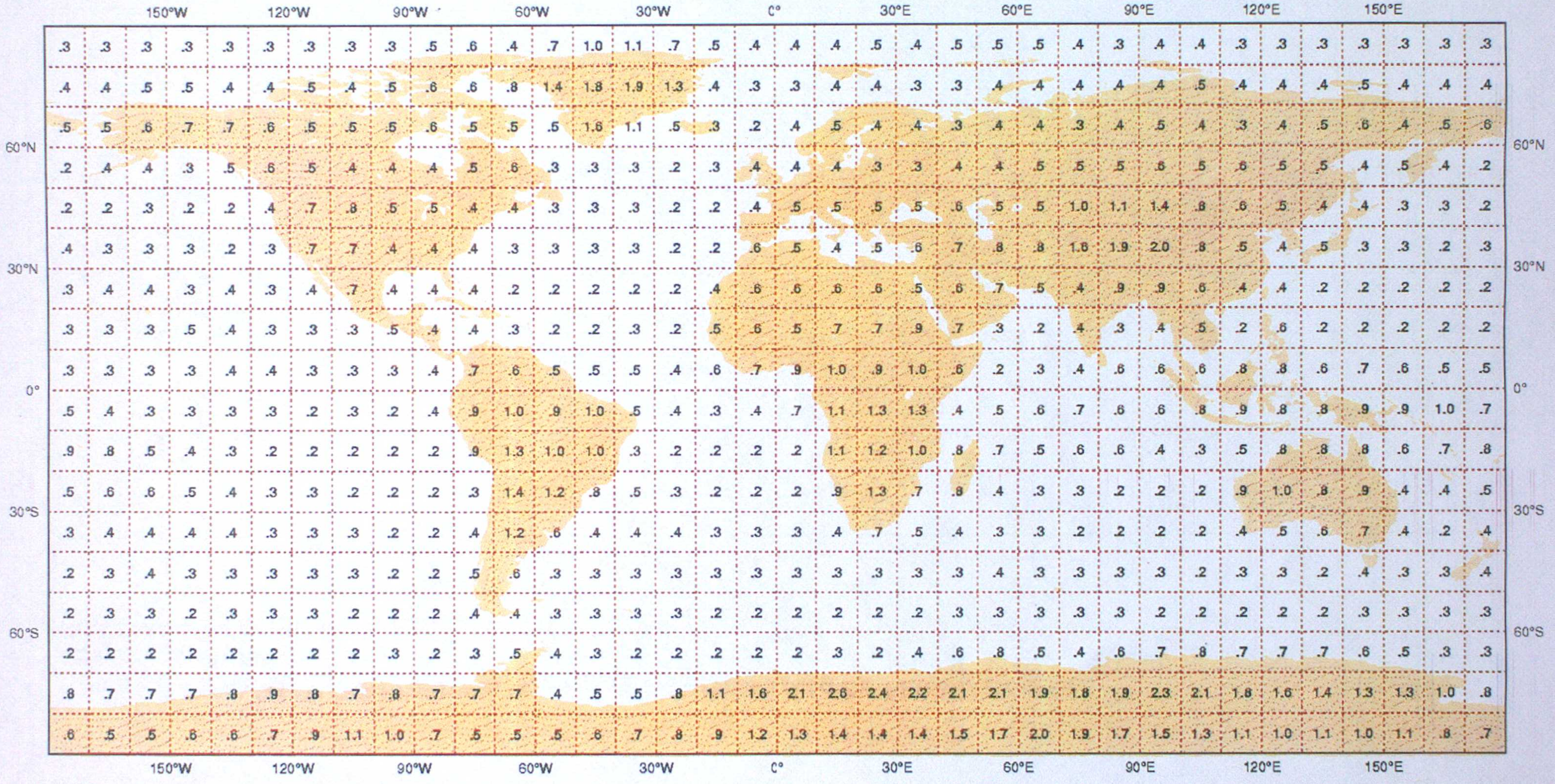
1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.1	1.1	1.1	1.0	1.0	1.1	1.1	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.1	1.0	1.0
1.1	1.2	1.2	1.1	1.2	1.1	1.1	1.1	1.1	1.2	1.1	1.1	1.2	1.3	1.3	1.2	1.2	1.1	1.1	1.1	1.2	1.3	1.2	1.3	1.3	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.1	1.1	1.1
1.3	1.4	1.8	1.7	1.6	1.3	1.2	1.1	1.1	1.1	1.2	1.3	1.5	1.6	1.3	1.3	1.6	1.3	1.3	1.3	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.3
1.4	1.6	1.6	1.5	1.5	1.6	1.5	1.2	1.1	1.1	1.3	1.3	1.5	1.5	1.7	1.5	1.3	1.4	1.3	1.2	1.1	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.3	1.3	1.1	1.1	1.1	1.2	1.4	1.5
1.9	1.9	1.4	1.7	1.7	1.7	1.9	1.7	1.3	1.2	1.5	1.7	1.8	1.9	2.0	1.8	1.4	1.4	1.6	1.4	1.3	1.4	1.5	1.6	1.8	2.0	1.8	1.6	1.4	1.3	1.3	1.4	1.5	1.6	1.6	1.6
2.3	2.0	1.6	1.8	1.6	1.4	1.7	1.8	1.6	1.6	2.0	1.8	1.8	1.9	2.1	1.7	1.7	1.6	1.4	1.5	1.4	1.4	1.9	2.2	2.2	2.2	2.3	2.2	1.9	1.8	1.7	1.6	1.6	1.5	1.5	1.6
1.6	2.3	2.4	2.2	2.1	2.1	1.9	1.7	1.3	1.6	2.4	1.7	1.3	1.1	1.2	1.3	2.0	2.2	2.1	1.8	1.7	2.2	2.2	1.9	1.8	1.5	1.3	1.9	2.0	1.7	1.8	1.4	1.2	1.4	1.2	1.1
1.6	1.7	1.8	2.1	2.1	2.0	2.1	2.2	1.8	1.8	2.1	1.9	1.4	1.5	1.9	2.1	2.0	2.3	2.4	2.6	2.1	1.3	1.2	1.1	1.1	1.3	1.8	2.1	1.9	1.5	2.3	2.2	2.6	2.7	2.4	1.9
2.5	2.3	1.8	1.3	1.6	2.0	2.0	2.3	1.7	2.2	3.1	3.2	2.7	3.0	2.8	2.7	3.4	3.9	4.3	4.4	4.3	2.4	1.3	1.4	1.9	2.7	4.5	4.1	3.5	4.1	4.5	4.4	5.1	4.8	3.9	3.2
3.8	2.9	2.1	1.8	1.5	1.3	1.2	1.5	1.4	1.8	4.8	5.1	4.7	4.5	2.9	2.7	2.1	2.8	3.8	4.9	5.9	4.4	2.4	3.3	3.9	4.6	4.2	4.4	4.9	5.4	5.2	5.3	5.7	6.4	6.4	5.2
5.8	5.2	3.5	2.9	1.6	1.6	1.8	1.4	1.4	1.3	4.5	5.3	5.0	4.5	1.6	1.2	1.0	1.0	1.4	4.9	5.7	5.1	4.5	5.1	3.7	4.6	4.5	2.5	2.3	4.1	4.2	4.3	4.0	3.7	4.9	6.0
3.1	3.8	3.3	3.2	2.4	1.9	1.6	1.6	1.4	1.1	1.1	3.2	4.0	3.5	2.6	1.8	1.2	1.1	1.0	3.3	4.3	3.7	3.6	2.9	2.2	1.8	1.6	1.1	1.0	2.7	2.2	1.8	2.1	1.5	2.0	2.7
1.5	1.8	1.5	2.2	2.4	2.0	1.9	1.8	1.5	1.2	1.1	2.7	2.2	1.8	2.1	2.1	2.1	1.6	1.3	1.2	2.0	2.5	2.1	1.8	1.7	1.7	1.4	1.2	1.0	1.3	1.7	1.5	1.4	1.5	1.2	1.2
1.1	1.3	1.6	1.5	1.5	1.6	1.6	1.5	1.5	1.3	1.4	1.9	1.5	1.4	1.4	1.4	1.4	1.3	1.4	1.4	1.4	1.4	1.5	1.6	1.7	1.6	1.5	1.5	1.4	1.3	1.4	1.3	1.3	1.3	1.4	1.3
1.2	1.1	1.1	1.2	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.4	1.4	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.2	1.2	1.1	1.1	1.2	1.1	1.2	1.2	1.3
1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.0	1.1	1.1	1.3	1.5	1.3	1.2	1.0	1.0	.9	1.0	1.0	.9	.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	.9	1.0	1.0	1.0	1.1	1.1	1.1
1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.0	1.0	1.0	.9	.9	1.0	1.0	1.0	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	1.0	1.0	1.0
1.0	1.0	1.0	1.1	1.1	1.0	1.0	1.0	1.0	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9	.9

Figure 49. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-5 (700 hPa)
NOAA16, using all observations



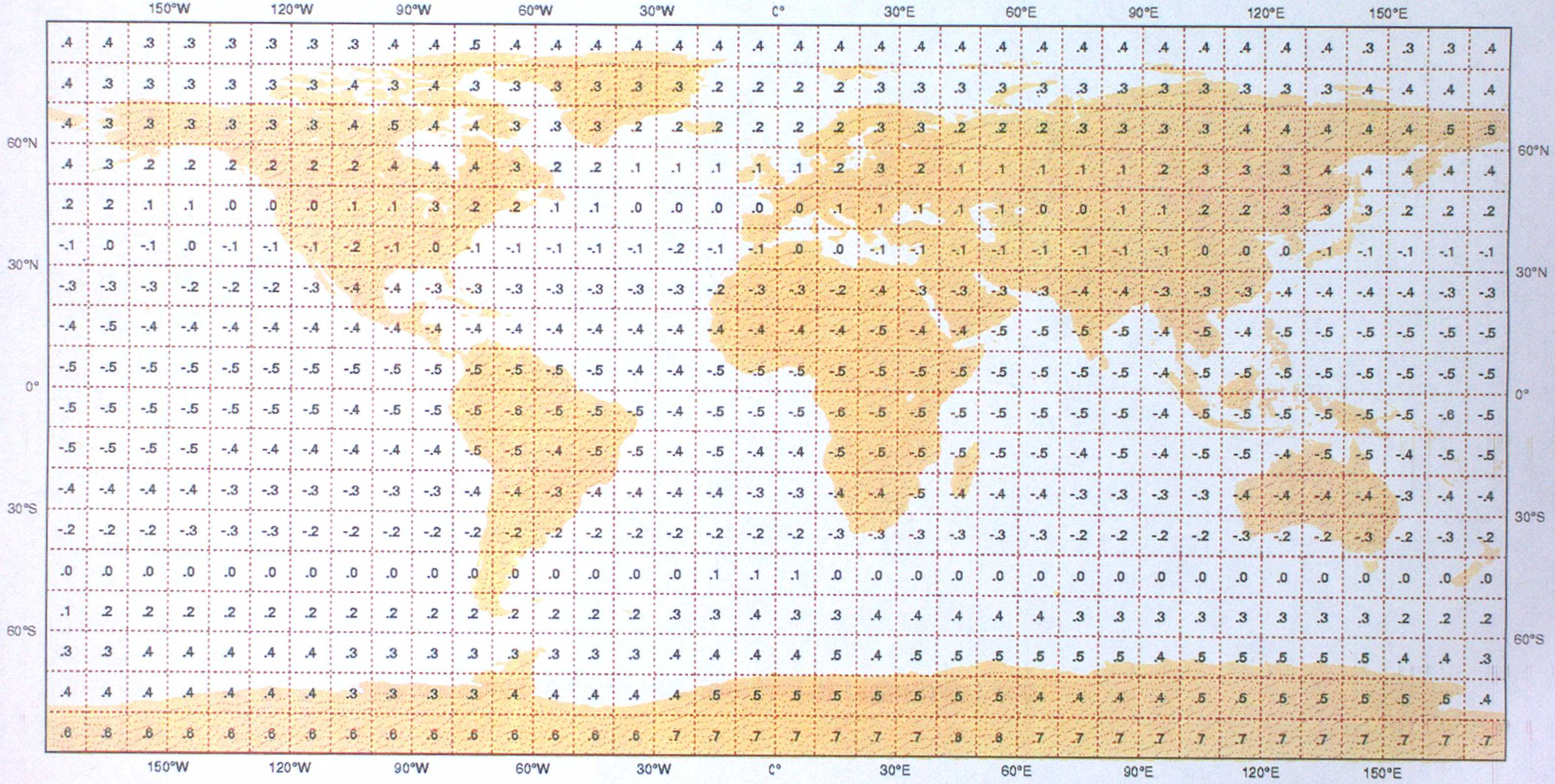
.0	.0	-.1	-.1	-.1	.0	-.1	-.3	-.3	-.3	-.1	-.4	-.4	-.6	-.5	.0	.1	-.1	-.1	-.1	.0	.1	.1	-.1	.0	.1	.0	-.1	-.1	-.2	-.3	-.3	-.2	-.1	-.2	-.1
.0	.0	-.1	-.2	-.1	-.2	-.3	-.3	-.4	-.4	.0	-.1	-.9	-3.1	-3.0	.0	-.1	.1	.2	.2	.1	.2	.1	.0	.0	.0	-.2	-.3	-.4	-.2	-.2	-.3	-.3	-.2	-.1	.0
-.1	-.2	-.3	-.2	-.4	-.4	-.5	-.3	-.2	-.1	-.1	.0	.0	-1.0	-.1	.0	.0	.1	.0	-.1	-.1	-.1	-.1	.0	-.2	-.3	-.2	-.2	-.5	-.4	-.3	-.3	-.4	-.2	-.3	-.2
.1	.1	.0	.0	-.1	.0	.0	.0	-.1	-.1	.0	.1	.1	.2	.1	.1	.1	-.1	-.1	-.2	.0	.0	-.1	-.2	-.3	-.4	-.2	.0	-.1	-.4	-.5	-.1	.0	-.1	.1	.1
.1	.1	.1	.0	.0	-.2	-.2	.2	.0	-.1	.0	-.1	.0	.1	.1	.0	.0	.0	-.1	-.2	-.1	-.2	-.1	-.4	-.2	-.4	.2	1.0	.8	.5	.1	.0	.0	.0	.1	.1
.0	.0	.0	-.1	-.1	-.1	.1	.2	-.1	-.1	-.1	-.1	.0	-.1	-.1	-.1	-.1	.0	.0	-.1	-.2	-.2	-.3	.2	.0	-.9	-.9	.0	.3	.1	-.1	-.2	-.1	.0	.0	.0
-.2	-.2	-.2	-.2	-.2	-.2	-.2	.3	-.1	-.3	-.2	-.1	-.1	-.1	-.1	-.1	.0	.3	.4	.1	-.1	.0	.0	-.2	-.1	.0	-.2	-.6	-.2	-.2	-.1	-.1	-.1	-.1	-.1	-.1
-.3	-.3	-.3	-.4	-.4	-.3	-.3	-.3	-.2	-.3	-.3	-.2	-.1	-.1	-.2	-.2	-.1	.0	-.1	-.3	.2	.5	.0	-.3	-.3	-.2	-.3	-.5	-.4	-.2	-.4	-.2	-.2	-.2	-.2	-.2
-.4	-.4	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.4	-.6	-.5	-.5	-.4	-.4	-.3	-.4	-.3	-.3	-.5	-.3	.4	.1	-.4	-.5	-.4	-.6	-.6	-.6	-.7	-.7	-.5	-.6	-.5	-.5	-.4
-.5	-.4	-.4	-.4	-.3	-.3	-.3	-.3	-.3	-.3	-.9	-1.2	-1.0	-.8	-.3	-.3	-.3	-.3	-.6	-1.0	-1.1	-.5	-.4	-.5	-.6	-.6	-.5	-.6	-.8	-.8	-.7	-.8	-1.0	-.8	-.9	-.7
-.9	-.7	-.5	-.5	-.4	-.3	-.3	-.2	-.2	-.2	-.5	-.9	-.9	-.6	-.2	-.2	-.2	-.2	-.2	-.4	-1.1	-.8	-.6	-.6	-.4	-.4	-.4	-.3	-.3	-.4	-.5	-.5	-.5	-.4	-.5	-.7
-.3	-.4	-.5	-.5	-.4	-.3	-.3	-.2	-.2	-.1	-.2	.0	-.6	-.6	-.4	-.2	-.2	-.2	-.2	-.2	-.6	-.3	-.4	-.3	-.3	-.3	-.2	-.2	-.1	-.1	-.2	.2	.1	-.2	-.2	-.3
-.2	-.2	-.2	-.2	-.2	-.2	-.2	-.2	-.2	-.1	-.1	.0	-.2	-.2	-.3	-.3	-.2	-.1	-.1	.0	.0	-.2	-.2	-.2	-.2	-.2	-.1	-.1	-.1	-.1	.0	.0	.3	-.1	-.1	-.2
-.1	-.1	-.1	-.1	.0	-.1	.0	.0	-.1	-.1	-.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	-.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	-.1	.0	-.1	-.1
.0	.0	.0	.1	.1	.1	.1	.1	.0	.0	-.1	-.1	.0	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.0	.0	.0
.1	.1	.1	.1	.2	.1	.1	.1	.1	.1	.1	-.1	-.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.0	-.1	.0	.1	.0	.0	-.1	.0	-.1	-.1	.0	-.1	.1	.1
-.9	-.8	-.4	-.3	-.3	-.5	-.4	-.3	-.4	-.3	-.3	-.4	-.2	.0	.0	-.4	-.6	-1.6	-2.6	-2.8	-2.3	-2.1	-2.5	-2.6	-1.8	-2.1	-2.7	-3.1	-2.8	-2.6	-2.4	-1.7	-1.3	-1.1	-.6	-.9
-.5	-.5	-.5	-.3	-.2	-.4	-.6	-.9	-.8	-.2	-.1	-.2	-.2	-.2	-.3	-.6	-1.2	-1.8	-2.1	-2.3	-2.5	-2.9	-3.3	-3.5	-3.7	-3.5	-3.4	-3.2	-3.0	-2.7	-2.6	-2.5	-2.0	-1.0	-.6	-.5

Figure 50. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-5 (700 hPa)
NOAA16, using all observations



.3	.3	.3	.3	.3	.3	.3	.3	.3	.5	.6	.4	.7	1.0	1.1	.7	.5	.4	.4	.4	.5	.4	.5	.5	.5	.4	.3	.4	.4	.3	.3	.3	.3	.3	.3	.3
.4	.4	.5	.5	.4	.4	.5	.4	.5	.6	.6	.8	1.4	1.8	1.9	1.3	.4	.3	.3	.4	.4	.3	.3	.4	.4	.4	.4	.4	.5	.4	.4	.4	.5	.4	.4	.4
.5	.5	.6	.7	.7	.6	.5	.5	.5	.6	.5	.5	.5	1.6	1.1	.5	.3	.2	.4	.5	.4	.4	.3	.4	.4	.3	.4	.5	.4	.3	.4	.5	.6	.4	.5	.6
.2	.4	.4	.3	.5	.6	.5	.4	.4	.4	.5	.6	.3	.3	.3	.2	.3	.4	.4	.4	.3	.3	.4	.4	.5	.5	.5	.6	.5	.6	.5	.5	.4	.5	.4	.2
.2	.2	.3	.2	.2	.4	.7	.8	.5	.5	.4	.4	.3	.3	.3	.2	.2	.4	.5	.5	.5	.5	.6	.5	.5	1.0	1.1	1.4	.8	.6	.5	.4	.4	.3	.3	.2
.4	.3	.3	.3	.2	.3	.7	.7	.4	.4	.4	.3	.3	.3	.3	.2	.2	.6	.5	.4	.5	.6	.7	.8	.8	1.6	1.9	2.0	.8	.5	.4	.5	.3	.3	.2	.3
.3	.4	.4	.3	.4	.3	.4	.7	.4	.4	.4	.2	.2	.2	.2	.2	.4	.6	.6	.6	.6	.5	.6	.7	.5	.4	.9	.9	.6	.4	.4	.2	.2	.2	.2	.2
.3	.3	.3	.5	.4	.3	.3	.3	.5	.4	.4	.3	.2	.2	.3	.2	.5	.6	.5	.7	.7	.9	.7	.3	.2	.4	.3	.4	.5	.2	.6	.2	.2	.2	.2	.2
.3	.3	.3	.3	.4	.4	.3	.3	.3	.4	.7	.6	.5	.5	.5	.4	.6	.7	.9	1.0	.9	1.0	.6	.2	.3	.4	.6	.6	.6	.8	.8	.6	.7	.6	.5	.5
.5	.4	.3	.3	.3	.3	.2	.3	.2	.4	.9	1.0	.9	1.0	.5	.4	.3	.4	.7	1.1	1.3	1.3	.4	.5	.6	.7	.6	.6	.8	.9	.8	.8	.9	.9	1.0	.7
.9	.8	.5	.4	.3	.2	.2	.2	.2	.2	.9	1.3	1.0	1.0	.3	.2	.2	.2	.2	1.1	1.2	1.0	.8	.7	.5	.6	.6	.4	.3	.5	.8	.8	.8	.6	.7	.8
.5	.6	.6	.5	.4	.3	.3	.2	.2	.2	.3	1.4	1.2	.8	.5	.3	.2	.2	.2	.9	1.3	.7	.8	.4	.3	.3	.2	.2	.2	.9	1.0	.8	.9	.4	.4	.5
.3	.4	.4	.4	.4	.3	.3	.3	.2	.2	.4	1.2	.6	.4	.4	.4	.3	.3	.3	.4	.7	.5	.4	.3	.3	.2	.2	.2	.2	.4	.5	.6	.7	.4	.2	.4
.2	.3	.4	.3	.3	.3	.3	.3	.2	.2	.5	.6	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.4	.3	.3	.3	.3	.2	.3	.3	.2	.4	.3	.3	.4
.2	.3	.3	.2	.3	.3	.3	.2	.2	.2	.4	.4	.3	.3	.3	.3	.2	.2	.2	.2	.2	.2	.3	.3	.3	.3	.3	.2	.2	.2	.2	.2	.3	.3	.3	.3
.2	.2	.2	.2	.2	.2	.2	.2	.3	.2	.3	.5	.4	.3	.2	.2	.2	.2	.2	.3	.2	.4	.6	.8	.5	.4	.6	.7	.8	.7	.7	.7	.6	.5	.3	.3
.8	.7	.7	.7	.8	.9	.8	.7	.8	.7	.7	.7	.4	.5	.5	.8	1.1	1.6	2.1	2.6	2.4	2.2	2.1	2.1	1.9	1.8	1.9	2.3	2.1	1.8	1.6	1.4	1.3	1.3	1.0	.8
.6	.5	.5	.6	.6	.7	.9	1.1	1.0	.7	.5	.5	.5	.6	.7	.8	.9	1.2	1.3	1.4	1.4	1.4	1.5	1.7	2.0	1.9	1.7	1.5	1.3	1.1	1.0	1.1	1.0	1.1	.8	.7

Figure 51. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-7 (300 hPa)
NOAA16, using all observations



.4	.4	.3	.3	.3	.3	.3	.3	.4	.4	.5	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.3	.3	.3	.4
.4	.3	.3	.3	.3	.3	.3	.4	.3	.4	.3	.3	.3	.3	.3	.3	.2	.2	.2	.2	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.4	.4	.4	.4
.4	.3	.3	.3	.3	.3	.3	.4	.5	.4	.4	.3	.3	.3	.2	.2	.2	.2	.2	.2	.3	.3	.2	.2	.2	.3	.3	.3	.3	.4	.4	.4	.4	.4	.5	.5
.4	.3	.2	.2	.2	.2	.2	.2	.4	.4	.4	.3	.2	.2	.1	.1	.1	.1	.1	.2	.3	.2	.1	.1	.1	.1	.1	.2	.3	.3	.3	.4	.4	.4	.4	.4
.2	.2	.1	.1	.0	.0	.0	.1	.1	.3	.2	.2	.1	.1	.0	.0	.0	.0	.0	.1	.1	.1	.1	.1	.0	.0	.1	.1	.2	.2	.3	.3	.3	.2	.2	.2
-.1	.0	-.1	.0	-.1	-.1	-.1	-.2	-.1	.0	-.1	-.1	-.1	-.1	-.1	-.2	-.1	-.1	.0	.0	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	.0	.0	.0	-.1	-.1	-.1	-.1	-.1
-.3	-.3	-.3	-.2	-.2	-.2	-.3	-.4	-.4	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.2	-.3	-.3	-.2	-.4	-.3	-.3	-.3	-.3	-.4	-.4	-.3	-.3	-.3	-.4	-.4	-.4	-.4	-.3	-.3
-.4	-.5	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.5	-.4	-.4	-.5	-.5	-.5	-.5	-.4	-.5	-.4	-.5	-.5	-.5	-.5	-.5	-.5
-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.4	-.4	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.4	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5
-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.4	-.5	-.5	-.5	-.6	-.5	-.5	-.5	-.4	-.5	-.5	-.5	-.6	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.4	-.5	-.5	-.5	-.5	-.5	-.5	-.6	-.5
-.5	-.5	-.5	-.5	-.4	-.4	-.4	-.4	-.4	-.4	-.5	-.5	-.4	-.5	-.5	-.4	-.5	-.4	-.4	-.5	-.5	-.5	-.5	-.5	-.5	-.4	-.5	-.4	-.5	-.5	-.4	-.5	-.5	-.4	-.5	-.5
-.4	-.4	-.4	-.4	-.3	-.3	-.3	-.3	-.3	-.3	-.4	-.4	-.3	-.4	-.4	-.4	-.4	-.3	-.3	-.4	-.4	-.5	-.4	-.4	-.4	-.3	-.3	-.3	-.3	-.4	-.4	-.4	-.4	-.3	-.4	-.4
-.2	-.2	-.2	-.3	-.3	-.3	-.2	-.2	-.2	-.2	-.2	-.2	-.2	-.2	-.2	-.2	-.2	-.2	-.2	-.3	-.3	-.3	-.3	-.3	-.3	-.2	-.2	-.2	-.2	-.3	-.2	-.2	-.3	-.2	-.3	-.2
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.1	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.3	.3	.4	.3	.3	.4	.4	.4	.4	.4	.3	.3	.3	.3	.3	.3	.3	.3	.2	.2	.2
.3	.3	.4	.4	.4	.4	.4	.3	.3	.3	.3	.3	.3	.3	.3	.4	.4	.4	.4	.5	.4	.5	.5	.5	.5	.5	.5	.4	.5	.5	.5	.5	.5	.4	.4	.3
.4	.4	.4	.4	.4	.4	.4	.3	.3	.3	.3	.4	.4	.4	.4	.4	.5	.5	.5	.5	.5	.5	.5	.5	.4	.4	.4	.4	.5	.5	.5	.5	.5	.5	.5	.4
.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.6	.7	.7	.7	.7	.7	.7	.7	.8	.8	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7

Figure 52. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-7 (300 hPa)
NOAA16, using all observations

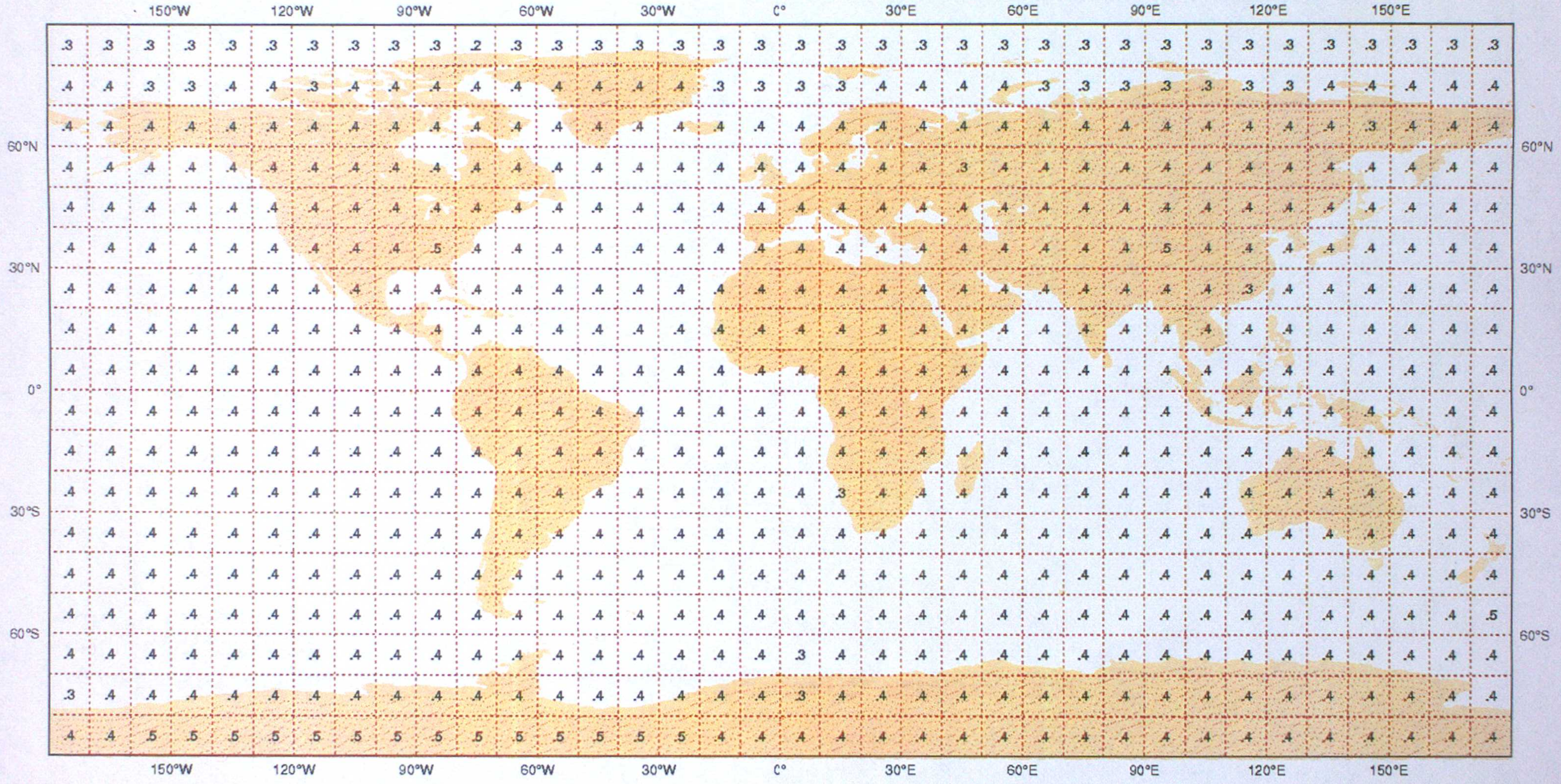
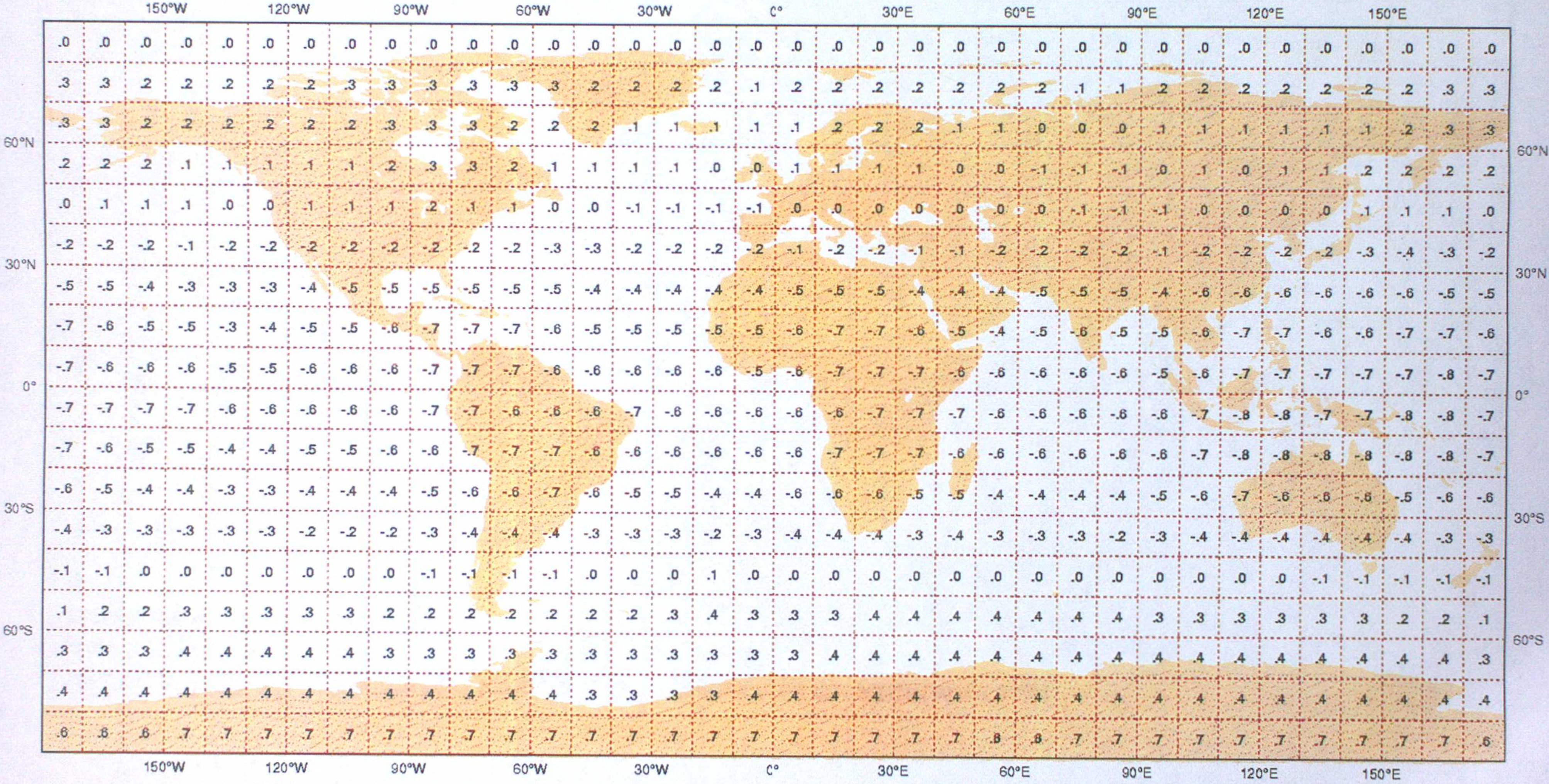
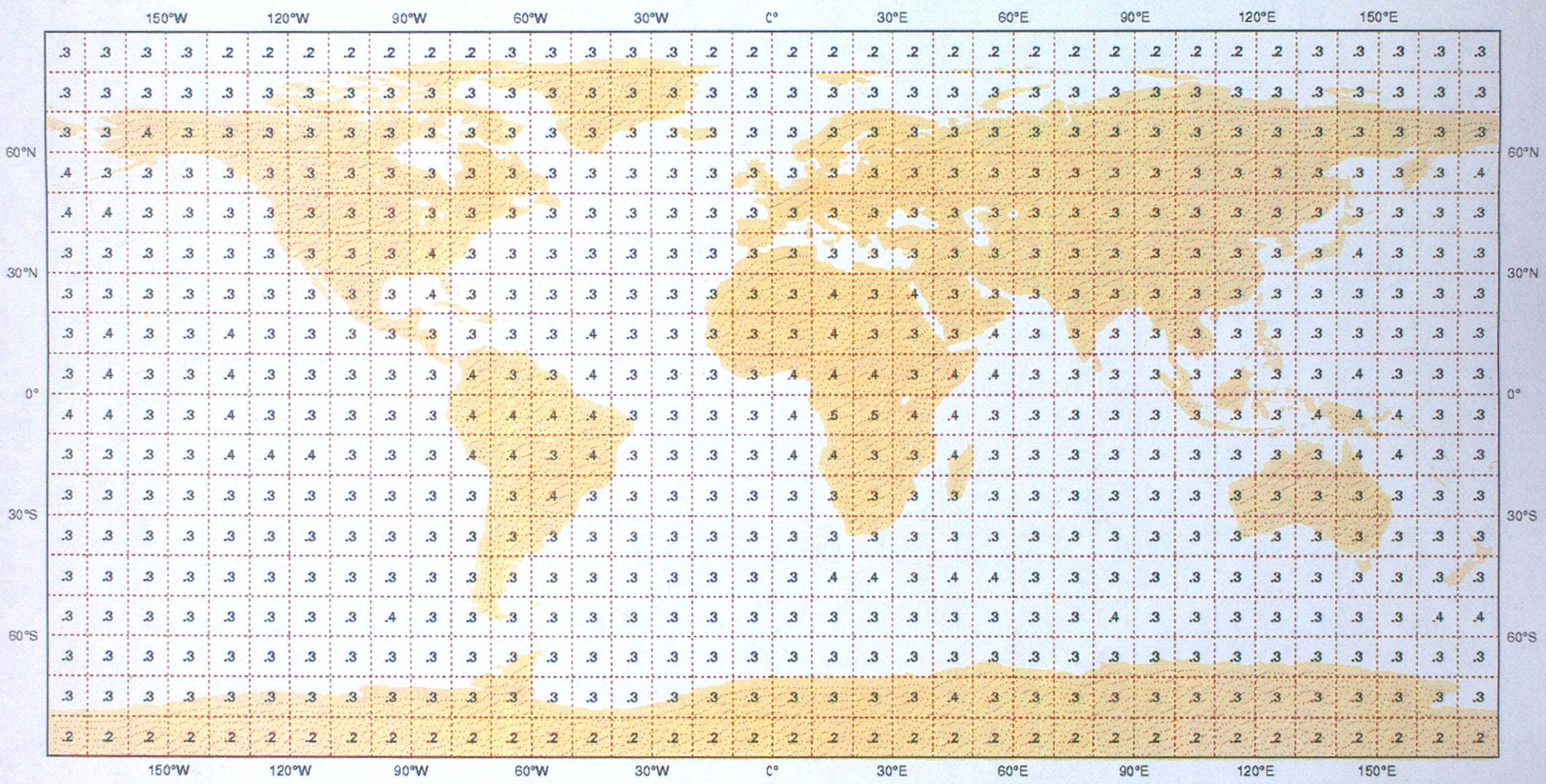

150°W 120°W 90°W 60°W 30°W C° 30°E 60°E 90°E 120°E 150°E
60°N
30°N
0°
30°S
60°S
.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .2 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.4 .4 .3 .3 .4 .4 .3 .4 .4 .4 .4 .4 .4 .4 .4 .4 .3 .3 .3 .3 .4 .4 .4 .4 .3 .3 .3 .3 .3 .3 .3 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .3 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .3 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .5 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .5 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .3 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .3 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .5
.4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .3 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.3 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .3 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4
.4 .4 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .5 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4 .4

Figure 53. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-9 (100 hPa)
NOAA16, using all observations



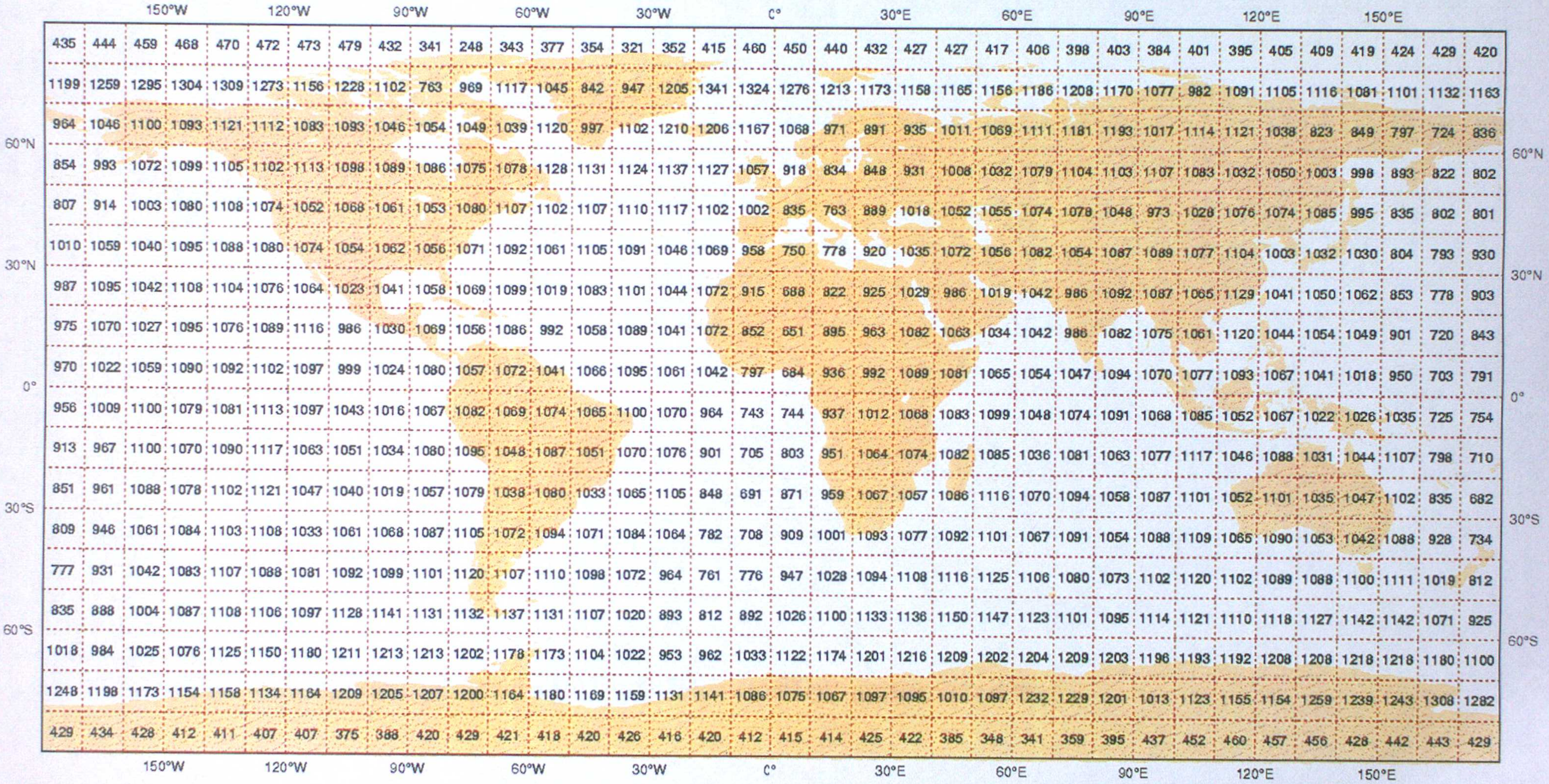
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.3	.3	.2	.2	.2	.2	.2	.3	.3	.3	.3	.3	.3	.2	.2	.2	.2	.1	.2	.2	.2	.2	.2	.2	.2	.1	.1	.2	.2	.2	.2	.2	.2	.2	.3	.3
.3	.3	.2	.2	.2	.2	.2	.2	.3	.3	.3	.2	.2	.2	.1	.1	.1	.1	.1	.2	.2	.2	.1	.1	.0	.0	.0	.1	.1	.1	.1	.1	.1	.2	.3	.3
.2	.2	.2	.1	.1	.1	.1	.1	.2	.3	.3	.2	.1	.1	.1	.1	.0	.0	.1	.1	.1	.1	.0	.0	-.1	-.1	-.1	.0	.1	.0	.1	.1	.2	.2	.2	.2
.0	.1	.1	.1	.0	.0	.1	.1	.1	.2	.1	.1	.0	.0	-.1	-.1	-.1	-.1	.0	.0	.0	.0	.0	.0	.0	-.1	-.1	-.1	.0	.0	.0	.0	.1	.1	.1	.0
-.2	-.2	-.2	-.1	-.2	-.2	-.2	-.2	-.2	-.2	-.2	-.2	-.3	-.3	-.2	-.2	-.2	-.2	-.1	-.2	-.2	-.1	-.1	-.2	-.2	-.2	-.2	-.1	-.2	-.2	-.2	-.2	-.3	-.4	-.3	-.2
-.5	-.5	-.4	-.3	-.3	-.3	-.4	-.5	-.5	-.5	-.5	-.5	-.5	-.4	-.4	-.4	-.4	-.4	-.5	-.5	-.5	-.4	-.4	-.4	-.5	-.5	-.5	-.4	-.6	-.6	-.6	-.6	-.6	-.6	-.5	-.5
-.7	-.6	-.5	-.5	-.3	-.4	-.5	-.5	-.6	-.7	-.7	-.7	-.6	-.5	-.5	-.5	-.5	-.5	-.6	-.7	-.7	-.6	-.5	-.4	-.5	-.6	-.5	-.5	-.6	-.7	-.7	-.6	-.6	-.7	-.7	-.6
-.7	-.6	-.6	-.6	-.5	-.5	-.6	-.6	-.6	-.7	-.7	-.7	-.6	-.6	-.6	-.6	-.6	-.5	-.6	-.7	-.7	-.7	-.6	-.6	-.6	-.6	-.6	-.5	-.6	-.7	-.7	-.7	-.7	-.7	-.8	-.7
-.7	-.7	-.7	-.7	-.6	-.6	-.6	-.6	-.6	-.7	-.7	-.6	-.6	-.6	-.7	-.6	-.6	-.6	-.6	-.6	-.7	-.7	-.7	-.6	-.6	-.6	-.6	-.6	-.6	-.7	-.8	-.8	-.7	-.7	-.8	-.8	-.7
-.7	-.6	-.5	-.5	-.4	-.4	-.5	-.5	-.6	-.6	-.7	-.7	-.7	-.6	-.6	-.6	-.6	-.6	-.6	-.7	-.7	-.7	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.7	-.8	-.8	-.8	-.8	-.8	-.8	-.7
-.6	-.5	-.4	-.4	-.3	-.3	-.4	-.4	-.4	-.5	-.6	-.6	-.7	-.6	-.5	-.5	-.4	-.4	-.6	-.6	-.6	-.5	-.5	-.4	-.4	-.4	-.4	-.5	-.6	-.7	-.6	-.6	-.6	-.5	-.6	-.6
-.4	-.3	-.3	-.3	-.3	-.3	-.2	-.2	-.2	-.3	-.4	-.4	-.4	-.3	-.3	-.3	-.2	-.3	-.4	-.4	-.4	-.3	-.4	-.3	-.3	-.3	-.2	-.3	-.4	-.4	-.4	-.4	-.4	-.4	-.3	-.3
-.1	-.1	.0	.0	.0	.0	.0	.0	.0	-.1	-.1	-.1	-.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	-.1	-.1	-.1	-.1	-.1
.1	.2	.2	.3	.3	.3	.3	.3	.2	.2	.2	.2	.2	.2	.2	.3	.4	.3	.3	.3	.4	.4	.4	.4	.4	.4	.4	.3	.3	.3	.3	.3	.3	.2	.2	.1
.3	.3	.3	.4	.4	.4	.4	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.3
.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.3	.3	.3	.3	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4
.6	.6	.6	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.8	.8	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.6

Figure 54. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-9 (100 hPa)
NOAA16, using all observations



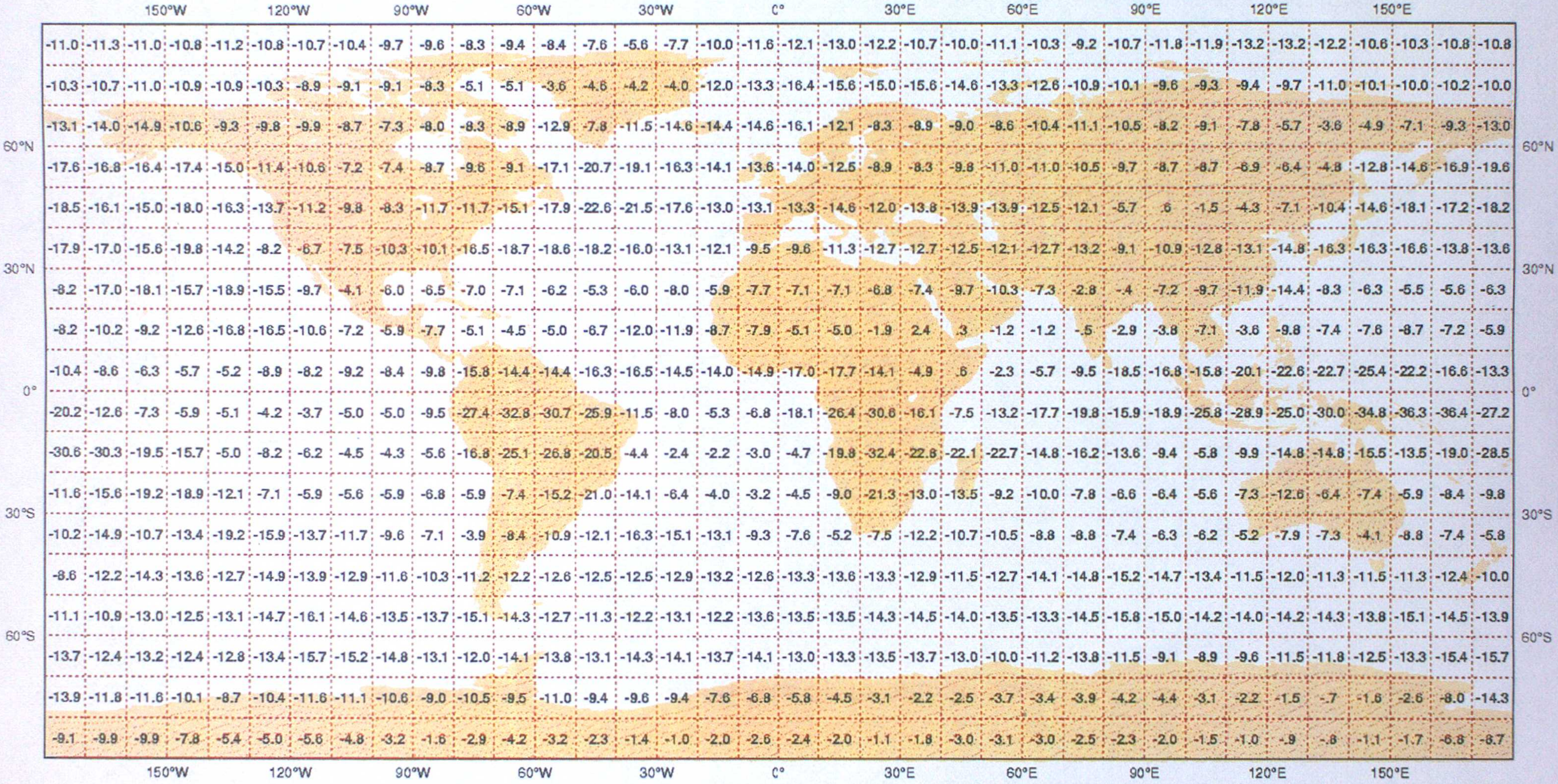
.3	.3	.3	.3	.2	.2	.2	.2	.2	.2	.2	.3	.3	.3	.3	.3	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.3	.3	.3	.3	.3
.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
.3	.3	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.4
.4	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
.3	.3	.3	.3	.3	.3	.3	.3	.3	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.4	.3	.3	.3
.3	.3	.3	.3	.3	.3	.3	.3	.3	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.4	.3	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
.3	.4	.3	.3	.4	.3	.3	.3	.3	.3	.3	.3	.3	.4	.3	.3	.3	.3	.3	.4	.3	.3	.3	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
.3	.4	.3	.3	.4	.3	.3	.3	.3	.3	.4	.3	.3	.4	.3	.3	.3	.3	.4	.4	.4	.3	.4	.4	.3	.3	.3	.3	.3	.3	.3	.3	.4	.3	.3	.3
.4	.4	.3	.3	.4	.3	.3	.3	.3	.3	.4	.4	.4	.4	.3	.3	.3	.3	.4	.5	.5	.4	.4	.3	.3	.3	.3	.3	.3	.3	.3	.4	.4	.4	.3	.3
.3	.3	.3	.3	.4	.4	.4	.3	.3	.3	.4	.4	.3	.4	.3	.3	.3	.3	.4	.4	.3	.3	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.4	.4	.3	.3
.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.4	.4	.3	.4	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
.3	.3	.3	.3	.3	.3	.3	.3	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.4	.3	.3	.3	.3	.3	.3	.3	.4	.4
.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2

Figure 55. ATOVS mean daily count. FEBRUARY 2006
NOAA18, using all observations
Global average number of observations in 24 hours = 634992



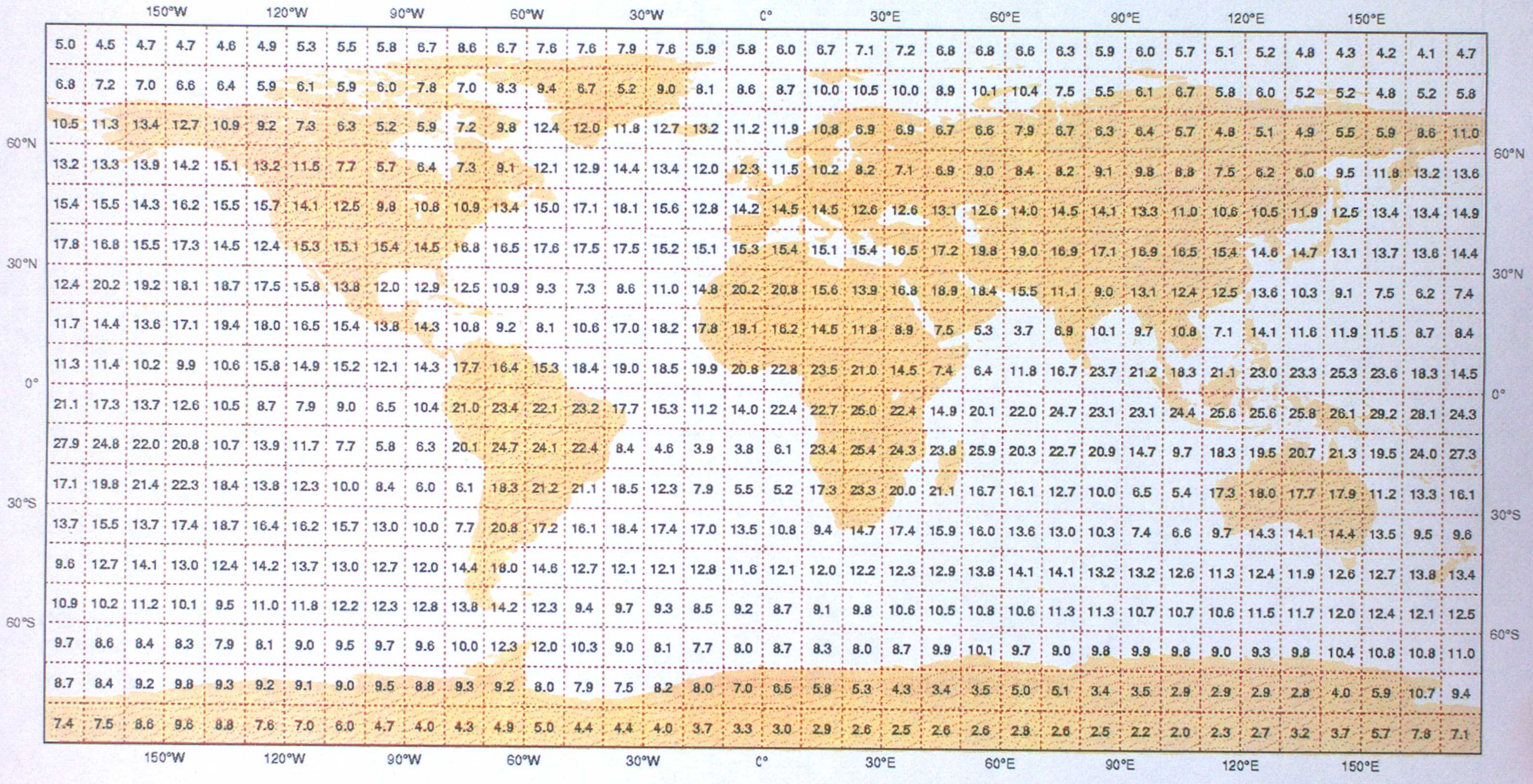
435	444	459	468	470	472	473	479	432	341	248	343	377	354	321	352	415	460	450	440	432	427	427	417	406	398	403	384	401	395	405	409	419	424	429	420
1199	1259	1295	1304	1309	1273	1156	1228	1102	763	969	1117	1045	842	947	1205	1341	1324	1276	1213	1173	1158	1165	1156	1186	1208	1170	1077	982	1091	1105	1116	1081	1101	1132	1163
964	1046	1100	1093	1121	1112	1083	1093	1046	1054	1049	1039	1120	997	1102	1210	1206	1167	1068	971	891	935	1011	1069	1111	1181	1193	1017	1114	1121	1038	823	849	797	724	836
854	993	1072	1099	1105	1102	1113	1098	1089	1086	1075	1078	1128	1131	1124	1137	1127	1057	918	834	848	931	1008	1032	1079	1104	1103	1107	1083	1032	1050	1003	998	893	822	802
807	914	1003	1080	1108	1074	1052	1068	1061	1053	1080	1107	1102	1107	1110	1117	1102	1002	835	763	889	1018	1052	1055	1074	1078	1048	973	1028	1076	1074	1085	995	835	802	801
1010	1059	1040	1095	1088	1080	1074	1054	1062	1056	1071	1092	1061	1105	1091	1046	1069	958	750	778	920	1035	1072	1056	1082	1054	1087	1089	1077	1104	1003	1032	1030	804	793	930
987	1095	1042	1108	1104	1076	1064	1023	1041	1058	1069	1099	1019	1083	1101	1044	1072	915	688	822	925	1029	986	1019	1042	986	1092	1087	1065	1129	1041	1050	1062	853	778	903
975	1070	1027	1095	1076	1089	1116	986	1030	1069	1056	1086	992	1058	1089	1041	1072	852	651	895	963	1082	1063	1034	1042	986	1082	1075	1061	1120	1044	1054	1049	901	720	843
970	1022	1059	1090	1092	1102	1097	999	1024	1080	1057	1072	1041	1066	1095	1061	1042	797	684	936	992	1089	1081	1065	1054	1047	1094	1070	1077	1093	1067	1041	1018	950	703	791
956	1009	1100	1079	1081	1113	1097	1043	1016	1067	1082	1069	1074	1065	1100	1070	964	743	744	937	1012	1068	1083	1099	1048	1074	1091	1068	1085	1052	1067	1022	1026	1035	725	754
913	967	1100	1070	1090	1117	1063	1051	1034	1080	1095	1048	1087	1051	1070	1076	901	705	803	951	1064	1074	1082	1085	1036	1081	1063	1077	1117	1046	1088	1031	1044	1107	798	710
851	961	1088	1078	1102	1121	1047	1040	1019	1057	1079	1038	1080	1033	1065	1105	848	691	871	959	1067	1057	1086	1116	1070	1094	1058	1087	1101	1052	1101	1035	1047	1102	835	682
809	946	1061	1084	1103	1108	1033	1061	1068	1087	1105	1072	1094	1071	1084	1064	782	708	909	1001	1093	1077	1092	1101	1067	1091	1054	1088	1109	1065	1090	1053	1042	1088	928	734
777	931	1042	1083	1107	1088	1081	1092	1099	1101	1120	1107	1110	1098	1072	964	761	776	947	1028	1094	1108	1116	1125	1106	1080	1073	1102	1120	1102	1089	1088	1100	1111	1019	812
835	888	1004	1087	1108	1106	1097	1128	1141	1131	1132	1137	1131	1107	1020	893	812	892	1026	1100	1133	1136	1150	1147	1123	1101	1095	1114	1121	1110	1118	1127	1142	1142	1071	925
1018	984	1025	1076	1125	1150	1180	1211	1213	1213	1202	1178	1173	1104	1022	953	962	1033	1122	1174	1201	1216	1209	1202	1204	1209	1203	1196	1193	1192	1208	1208	1218	1218	1180	1100
1248	1198	1173	1154	1158	1134	1164	1209	1205	1207	1200	1164	1180	1169	1159	1131	1141	1086	1075	1067	1097	1095	1010	1097	1232	1229	1201	1013	1123	1155	1154	1259	1239	1243	1308	1282
429	434	428	412	411	407	407	375	388	420	429	421	418	420	426	416	420	412	415	414	425	422	385	348	341	359	395	437	452	460	457	456	428	442	443	429

Figure 56. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS8 (Surface)
NOAA18, using all observations



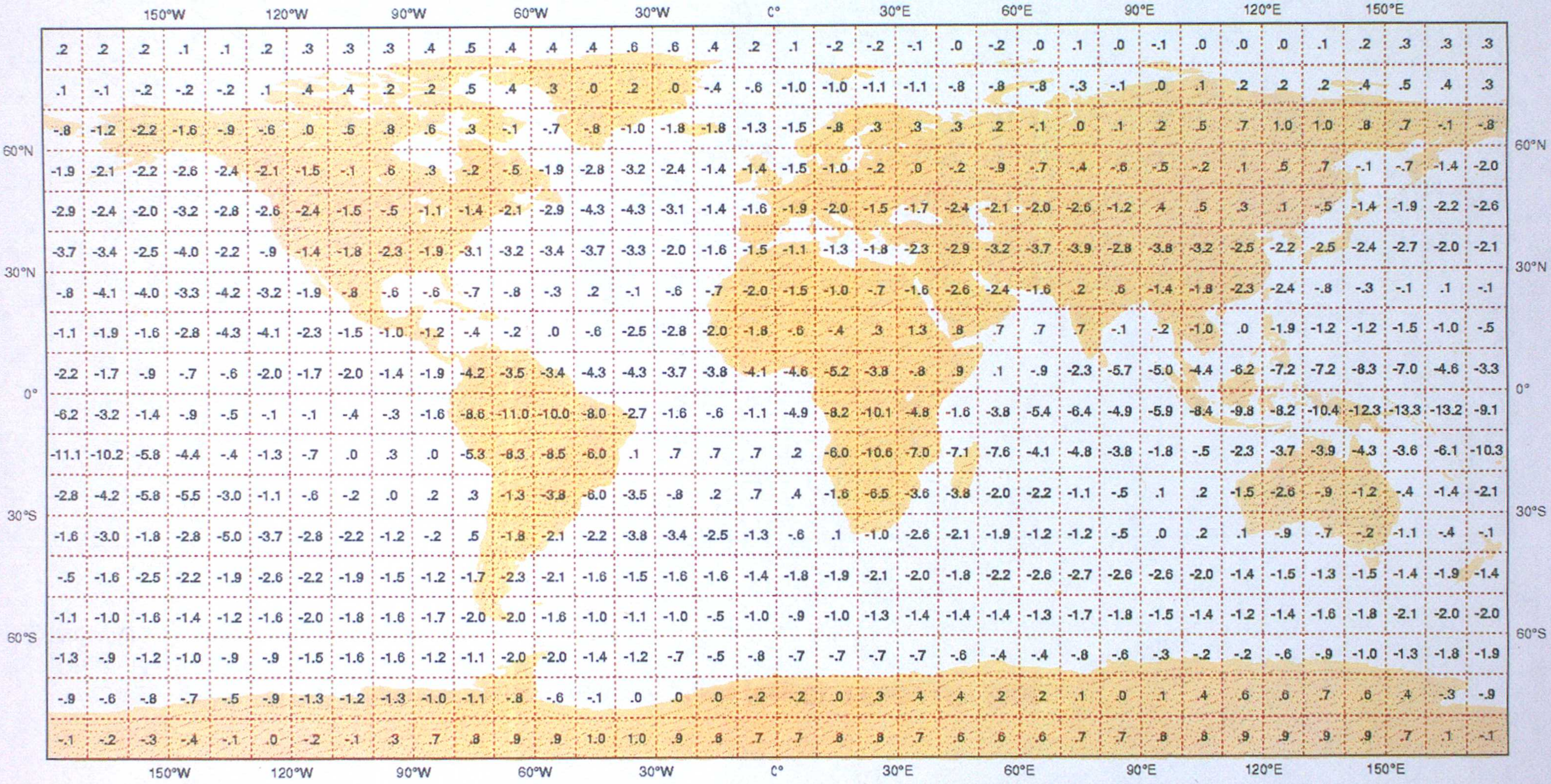
-11.0	-11.3	-11.0	-10.8	-11.2	-10.8	-10.7	-10.4	-9.7	-9.6	-8.3	-9.4	-8.4	-7.6	-5.6	-7.7	-10.0	-11.6	-12.1	-13.0	-12.2	-10.7	-10.0	-11.1	-10.3	-9.2	-10.7	-11.8	-11.9	-13.2	-13.2	-12.2	-10.6	-10.3	-10.8	-10.8
-10.3	-10.7	-11.0	-10.9	-10.9	-10.3	-8.9	-9.1	-9.1	-8.3	-5.1	-5.1	-3.6	-4.6	-4.2	-4.0	-12.0	-13.3	-16.4	-15.6	-15.0	-15.6	-14.6	-13.3	-12.6	-10.9	-10.1	-9.6	-9.3	-9.4	-9.7	-11.0	-10.1	-10.0	-10.2	-10.0
-13.1	-14.0	-14.9	-10.6	-9.3	-9.8	-9.9	-8.7	-7.3	-8.0	-8.3	-8.9	-12.9	-7.8	-11.5	-14.6	-14.4	-14.6	-16.1	-12.1	-8.3	-8.9	-9.0	-8.6	-10.4	-11.1	-10.5	-8.2	-9.1	-7.8	-5.7	-3.6	-4.9	-7.1	-9.3	-13.0
-17.6	-16.8	-16.4	-17.4	-15.0	-11.4	-10.6	-7.2	-7.4	-8.7	-9.6	-9.1	-17.1	-20.7	-19.1	-16.3	-14.1	-13.6	-14.0	-12.5	-8.9	-8.3	-9.8	-11.0	-11.0	-10.5	-9.7	-8.7	-8.7	-6.9	-6.4	-4.8	-12.8	-14.6	-16.9	-19.6
-18.5	-16.1	-15.0	-18.0	-16.3	-13.7	-11.2	-9.8	-8.3	-11.7	-11.7	-15.1	-17.9	-22.6	-21.5	-17.6	-13.0	-13.1	-13.3	-14.6	-12.0	-13.8	-13.9	-13.9	-12.5	-12.1	-5.7	.6	-1.5	-4.3	-7.1	-10.4	-14.6	-18.1	-17.2	-18.2
-17.9	-17.0	-15.6	-19.8	-14.2	-8.2	-6.7	-7.5	-10.3	-10.1	-16.5	-18.7	-18.6	-18.2	-16.0	-13.1	-12.1	-9.5	-9.6	-11.3	-12.7	-12.7	-12.5	-12.1	-12.7	-13.2	-9.1	-10.9	-12.8	-13.1	-14.8	-16.3	-16.3	-16.6	-13.8	-13.6
-8.2	-17.0	-18.1	-15.7	-18.9	-15.5	-9.7	-4.1	-6.0	-6.5	-7.0	-7.1	-6.2	-5.3	-6.0	-8.0	-5.9	-7.7	-7.1	-7.1	-6.8	-7.4	-9.7	-10.3	-7.3	-2.8	-.4	-7.2	-9.7	-11.9	-14.4	-8.3	-6.3	-5.5	-5.6	-6.3
-8.2	-10.2	-9.2	-12.6	-16.8	-16.5	-10.6	-7.2	-5.9	-7.7	-5.1	-4.5	-5.0	-6.7	-12.0	-11.9	-8.7	-7.9	-5.1	-5.0	-1.9	2.4	.3	-1.2	-1.2	-.5	-2.9	-3.8	-7.1	-3.6	-9.8	-7.4	-7.6	-8.7	-7.2	-5.9
-10.4	-8.6	-6.3	-5.7	-5.2	-8.9	-8.2	-9.2	-8.4	-9.8	-15.8	-14.4	-14.4	-16.3	-16.5	-14.5	-14.0	-14.9	-17.0	-17.7	-14.1	-4.9	.6	-2.3	-5.7	-9.5	-18.5	-16.8	-15.8	-20.1	-22.6	-22.7	-25.4	-22.2	-16.6	-13.3
-20.2	-12.6	-7.3	-5.9	-5.1	-4.2	-3.7	-5.0	-5.0	-9.5	-27.4	-32.8	-30.7	-25.9	-11.5	-8.0	-5.3	-6.8	-18.1	-26.4	-30.6	-16.1	-7.5	-13.2	-17.7	-19.8	-15.9	-18.9	-25.8	-28.9	-25.0	-30.0	-34.8	-36.3	-36.4	-27.2
-30.6	-30.3	-19.5	-15.7	-5.0	-8.2	-6.2	-4.5	-4.3	-5.6	-16.8	-25.1	-26.8	-20.5	-4.4	-2.4	-2.2	-3.0	-4.7	-19.8	-32.4	-22.8	-22.1	-22.7	-14.8	-16.2	-13.6	-9.4	-5.8	-9.9	-14.8	-14.8	-15.5	-13.5	-19.0	-28.5
-11.6	-15.6	-19.2	-18.9	-12.1	-7.1	-5.9	-5.6	-5.9	-6.8	-5.9	-7.4	-15.2	-21.0	-14.1	-6.4	-4.0	-3.2	-4.5	-9.0	-21.3	-13.0	-13.5	-9.2	-10.0	-7.8	-6.6	-6.4	-5.6	-7.3	-12.6	-6.4	-7.4	-5.9	-8.4	-9.8
-10.2	-14.9	-10.7	-13.4	-19.2	-15.9	-13.7	-11.7	-9.6	-7.1	-3.9	-8.4	-10.9	-12.1	-16.3	-15.1	-13.1	-9.3	-7.6	-5.2	-7.5	-12.2	-10.7	-10.5	-8.8	-8.8	-7.4	-6.3	-6.2	-5.2	-7.9	-7.3	-4.1	-8.8	-7.4	-5.8
-8.6	-12.2	-14.3	-13.6	-12.7	-14.9	-13.9	-12.9	-11.6	-10.3	-11.2	-12.2	-12.6	-12.5	-12.5	-12.9	-13.2	-12.6	-13.3	-13.6	-13.3	-12.9	-11.5	-12.7	-14.1	-14.8	-15.2	-14.7	-13.4	-11.5	-12.0	-11.3	-11.5	-11.3	-12.4	-10.0
-11.1	-10.9	-13.0	-12.5	-13.1	-14.7	-16.1	-14.6	-13.5	-13.7	-15.1	-14.3	-12.7	-11.3	-12.2	-13.1	-12.2	-13.6	-13.5	-13.5	-14.3	-14.5	-14.0	-13.5	-13.3	-14.5	-15.8	-15.0	-14.2	-14.0	-14.2	-14.3	-13.8	-15.1	-14.5	-13.9
-13.7	-12.4	-13.2	-12.4	-12.8	-13.4	-15.7	-15.2	-14.8	-13.1	-12.0	-14.1	-13.8	-13.1	-14.3	-14.1	-13.7	-14.1	-13.0	-13.3	-13.5	-13.7	-13.0	-10.0	-11.2	-13.8	-11.5	-9.1	-8.9	-9.6	-11.5	-11.8	-12.5	-13.3	-15.4	-15.7
-13.9	-11.8	-11.6	-10.1	-8.7	-10.4	-11.6	-11.1	-10.6	-9.0	-10.5	-9.5	-11.0	-9.4	-9.6	-9.4	-7.6	-6.8	-5.8	-4.5	-3.1	-2.2	-2.5	-3.7	-3.4	-3.9	-4.2	-4.4	-3.1	-2.2	-1.5	-.7	-1.6	-2.6	-8.0	-14.3
-9.1	-9.9	-9.9	-7.8	-5.4	-5.0	-5.6	-4.8	-3.2	-1.6	-2.9	-4.2	-3.2	-2.3	-1.4	-1.0	-2.0	-2.6	-2.4	-2.0	-1.1	-1.8	-3.0	-3.1	-3.0	-2.5	-2.3	-2.0	-1.5	-1.0	-.9	-.8	-1.1	-1.7	-6.8	-8.7

Figure 57. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS8 (Surface)
NOAA18, using all observations



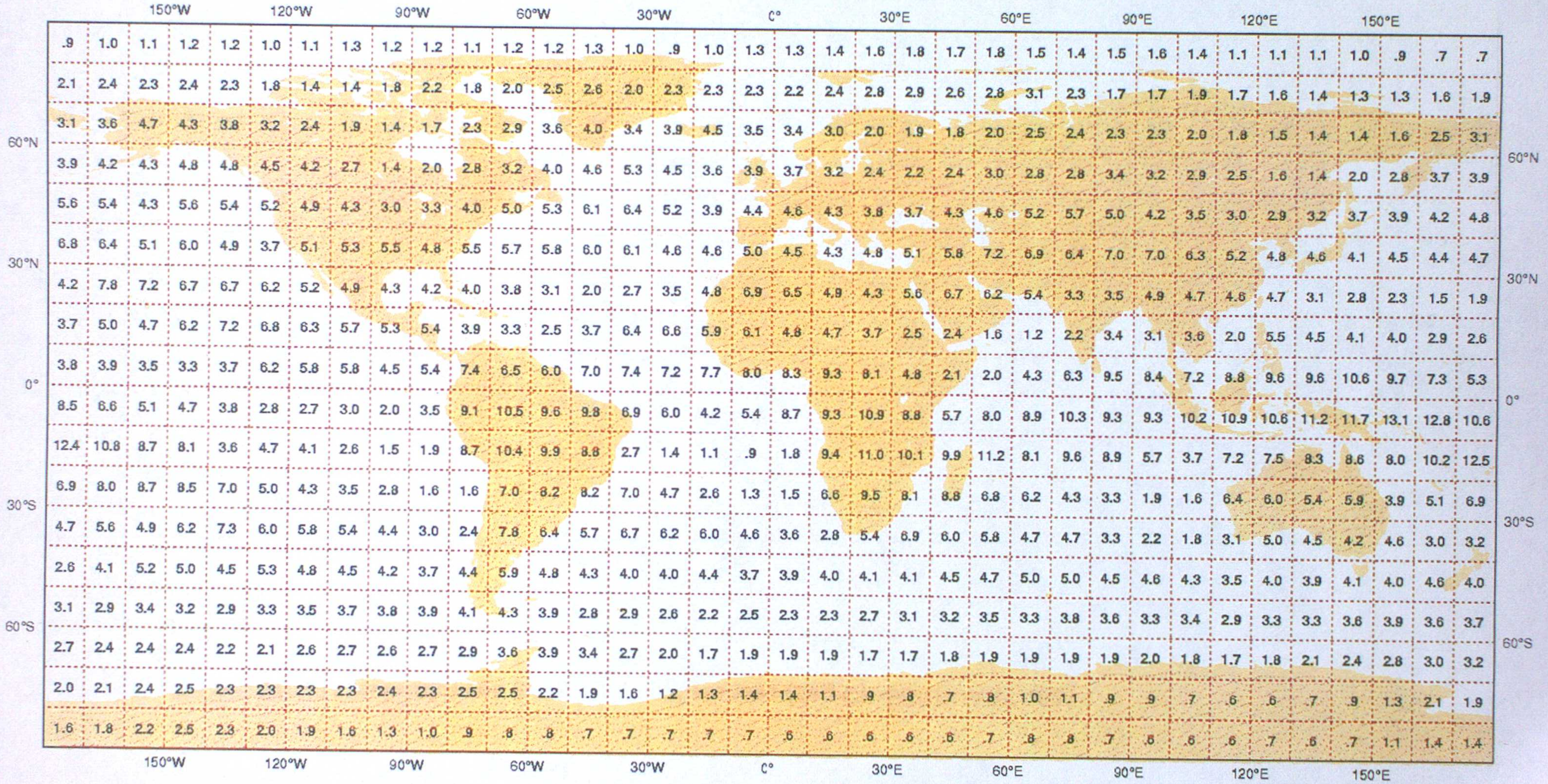
5.0	4.5	4.7	4.7	4.6	4.9	5.3	5.5	5.8	6.7	8.6	6.7	7.6	7.6	7.9	7.6	5.9	5.8	6.0	6.7	7.1	7.2	6.8	6.8	6.6	6.3	5.9	6.0	5.7	5.1	5.2	4.8	4.3	4.2	4.1	4.7
6.8	7.2	7.0	6.6	6.4	5.9	6.1	5.9	6.0	7.8	7.0	8.3	9.4	6.7	5.2	9.0	8.1	8.6	8.7	10.0	10.5	10.0	8.9	10.1	10.4	7.5	5.5	6.1	6.7	5.8	6.0	5.2	5.2	4.8	5.2	5.8
10.5	11.3	13.4	12.7	10.9	9.2	7.3	6.3	5.2	5.9	7.2	9.8	12.4	12.0	11.8	12.7	13.2	11.2	11.9	10.8	6.9	6.9	6.7	6.6	7.9	6.7	6.3	6.4	5.7	4.8	5.1	4.9	5.5	5.9	8.6	11.0
13.2	13.3	13.9	14.2	15.1	13.2	11.5	7.7	5.7	6.4	7.3	9.1	12.1	12.9	14.4	13.4	12.0	12.3	11.5	10.2	8.2	7.1	6.9	9.0	8.4	8.2	9.1	9.8	8.8	7.5	6.2	6.0	9.5	11.8	13.2	13.6
15.4	15.5	14.3	16.2	15.5	15.7	14.1	12.5	9.8	10.8	10.9	13.4	15.0	17.1	18.1	15.6	12.8	14.2	14.5	14.5	12.6	12.6	13.1	12.6	14.0	14.5	14.1	13.3	11.0	10.6	10.5	11.9	12.5	13.4	13.4	14.9
17.8	16.8	15.5	17.3	14.5	12.4	15.3	15.1	15.4	14.5	16.8	16.5	17.6	17.5	17.5	15.2	15.1	15.3	15.4	15.1	15.4	16.5	17.2	19.8	19.0	16.9	17.1	16.9	16.5	15.4	14.6	14.7	13.1	13.7	13.6	14.4
12.4	20.2	19.2	18.1	18.7	17.5	15.8	13.8	12.0	12.9	12.5	10.9	9.3	7.3	8.6	11.0	14.8	20.2	20.8	15.6	13.9	16.8	18.9	18.4	15.5	11.1	9.0	13.1	12.4	12.5	13.6	10.3	9.1	7.5	6.2	7.4
11.7	14.4	13.6	17.1	19.4	18.0	16.5	15.4	13.8	14.3	10.8	9.2	8.1	10.6	17.0	18.2	17.8	19.1	16.2	14.5	11.8	8.9	7.5	5.3	3.7	6.9	10.1	9.7	10.8	7.1	14.1	11.6	11.9	11.5	8.7	8.4
11.3	11.4	10.2	9.9	10.6	15.8	14.9	15.2	12.1	14.3	17.7	16.4	15.3	18.4	19.0	18.5	19.9	20.8	22.8	23.5	21.0	14.5	7.4	6.4	11.8	16.7	23.7	21.2	18.3	21.1	23.0	23.3	25.3	23.6	18.3	14.5
21.1	17.3	13.7	12.6	10.5	8.7	7.9	9.0	6.5	10.4	21.0	23.4	22.1	23.2	17.7	15.3	11.2	14.0	22.4	22.7	25.0	22.4	14.9	20.1	22.0	24.7	23.1	23.1	24.4	25.6	25.6	25.8	26.1	29.2	28.1	24.3
27.9	24.8	22.0	20.8	10.7	13.9	11.7	7.7	5.8	6.3	20.1	24.7	24.1	22.4	8.4	4.6	3.9	3.8	6.1	23.4	25.4	24.3	23.8	25.9	20.3	22.7	20.9	14.7	9.7	18.3	19.5	20.7	21.3	19.5	24.0	27.3
17.1	19.8	21.4	22.3	18.4	13.8	12.3	10.0	8.4	6.0	6.1	18.3	21.2	21.1	18.5	12.3	7.9	5.5	5.2	17.3	23.3	20.0	21.1	16.7	16.1	12.7	10.0	6.5	5.4	17.3	18.0	17.7	17.9	11.2	13.3	16.1
13.7	15.5	13.7	17.4	18.7	16.4	16.2	15.7	13.0	10.0	7.7	20.8	17.2	16.1	18.4	17.4	17.0	13.5	10.8	9.4	14.7	17.4	15.9	16.0	13.6	13.0	10.3	7.4	6.6	9.7	14.3	14.1	14.4	13.5	9.5	9.6
9.6	12.7	14.1	13.0	12.4	14.2	13.7	13.0	12.7	12.0	14.4	18.0	14.6	12.7	12.1	12.1	12.8	11.6	12.1	12.0	12.2	12.3	12.9	13.8	14.1	14.1	13.2	13.2	12.6	11.3	12.4	11.9	12.6	12.7	13.8	13.4
10.9	10.2	11.2	10.1	9.5	11.0	11.8	12.2	12.3	12.8	13.8	14.2	12.3	9.4	9.7	9.3	8.5	9.2	8.7	9.1	9.8	10.6	10.5	10.8	10.6	11.3	11.3	10.7	10.7	10.6	11.5	11.7	12.0	12.4	12.1	12.5
9.7	8.6	8.4	8.3	7.9	8.1	9.0	9.5	9.7	9.6	10.0	12.3	12.0	10.3	9.0	8.1	7.7	8.0	8.7	8.3	8.0	8.7	9.9	10.1	9.7	9.0	9.8	9.9	9.8	9.0	9.3	9.8	10.4	10.8	10.8	11.0
8.7	8.4	9.2	9.8	9.3	9.2	9.1	9.0	9.5	8.8	9.3	9.2	8.0	7.9	7.5	8.2	8.0	7.0	6.5	5.8	5.3	4.3	3.4	3.5	5.0	5.1	3.4	3.5	2.9	2.9	2.9	2.8	4.0	5.9	10.7	9.4
7.4	7.5	8.6	9.8	8.8	7.6	7.0	6.0	4.7	4.0	4.3	4.9	5.0	4.4	4.4	4.0	3.7	3.3	3.0	2.9	2.6	2.5	2.6	2.6	2.8	2.6	2.5	2.2	2.0	2.3	2.7	3.2	3.7	5.7	7.8	7.1

Figure 58. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS15 (700 hPa)
NOAA18, using all observations



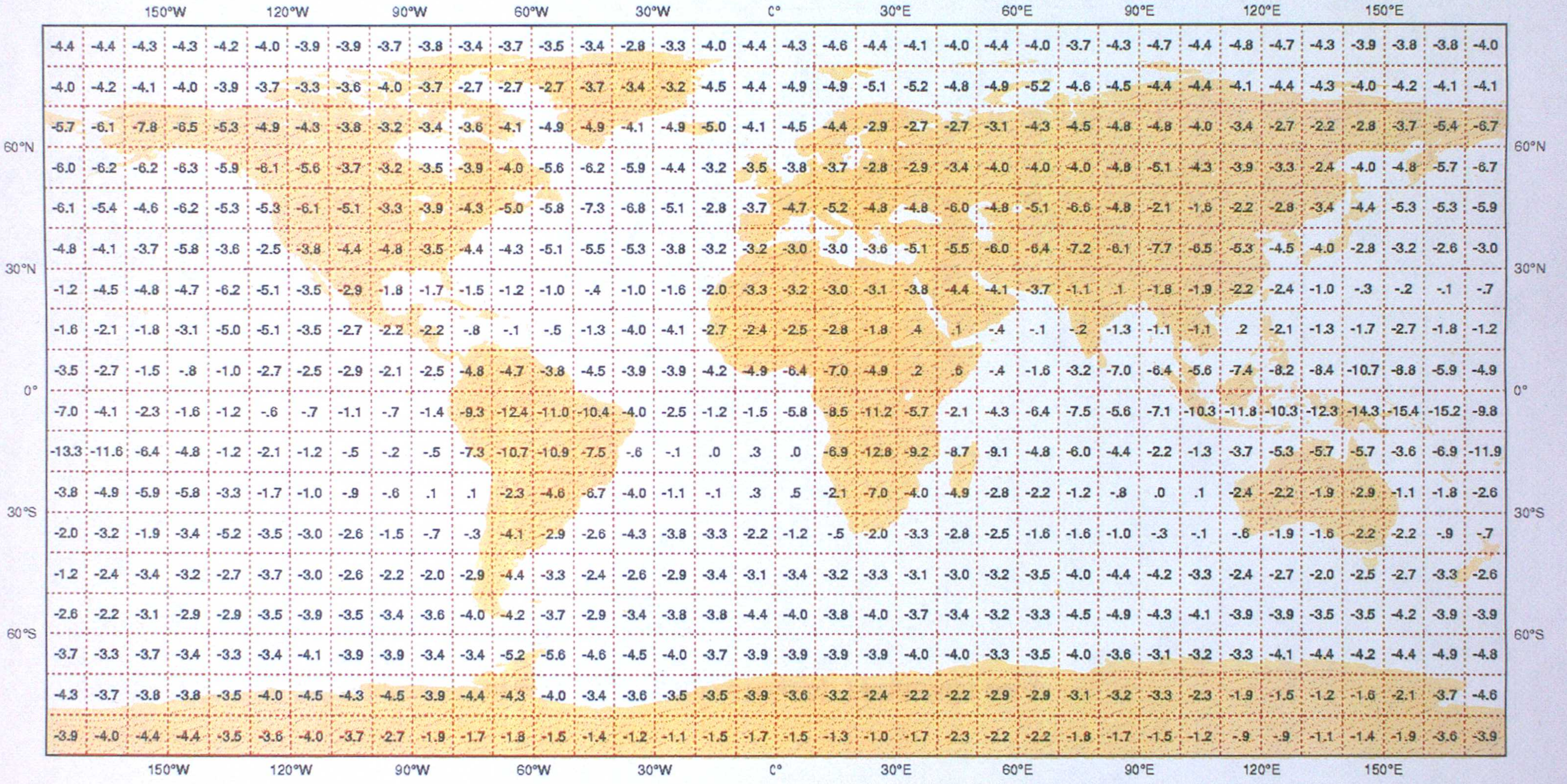
.2	.2	.2	.1	.1	.2	.3	.3	.3	.4	.5	.4	.4	.4	.6	.6	.4	.2	.1	-.2	-.2	-.1	.0	-.2	.0	.1	.0	-.1	.0	.0	.0	.1	.2	.3	.3	.3
.1	-.1	-.2	-.2	-.2	.1	.4	.4	.2	.2	.5	.4	.3	.0	.2	.0	-.4	-.6	-1.0	-1.0	-1.1	-1.1	-.8	-.8	-.8	-.3	-.1	.0	.1	.2	.2	.2	.4	.5	.4	.3
-.8	-1.2	-2.2	-1.6	-.9	-.6	.0	.5	.8	.6	.3	-.1	-.7	-.8	-1.0	-1.8	-1.8	-1.3	-1.5	-.8	.3	.3	.3	.2	-.1	.0	.1	.2	.5	.7	1.0	1.0	.8	.7	-.1	-.8
-1.9	-2.1	-2.2	-2.6	-2.4	-2.1	-1.5	-.1	.6	.3	-.2	-.5	-1.9	-2.8	-3.2	-2.4	-1.4	-1.4	-1.5	-1.0	-.2	.0	-.2	-.9	-.7	-.4	-.6	-.5	-.2	.1	.5	.7	-.1	-.7	-1.4	-2.0
-2.9	-2.4	-2.0	-3.2	-2.8	-2.6	-2.4	-1.5	-.5	-1.1	-1.4	-2.1	-2.9	-4.3	-4.3	-3.1	-1.4	-1.6	-1.9	-2.0	-1.5	-1.7	-2.4	-2.1	-2.0	-2.6	-1.2	.4	.5	.3	.1	-.5	-1.4	-1.9	-2.2	-2.6
-3.7	-3.4	-2.5	-4.0	-2.2	-.9	-1.4	-1.8	-2.3	-1.9	-3.1	-3.2	-3.4	-3.7	-3.3	-2.0	-1.6	-1.5	-1.1	-1.3	-1.8	-2.3	-2.9	-3.2	-3.7	-3.9	-2.8	-3.8	-3.2	-2.5	-2.2	-2.5	-2.4	-2.7	-2.0	-2.1
-.8	-4.1	-4.0	-3.3	-4.2	-3.2	-1.9	-.8	-.6	-.6	-.7	-.8	-.3	.2	-.1	-.6	-.7	-2.0	-1.5	-1.0	-.7	-1.6	-2.6	-2.4	-1.6	.2	.6	-1.4	-1.8	-2.3	-2.4	-.8	-.3	-.1	.1	-.1
-1.1	-1.9	-1.6	-2.8	-4.3	-4.1	-2.3	-1.5	-1.0	-1.2	-.4	-.2	.0	-.6	-2.5	-2.8	-2.0	-1.8	-.6	-.4	.3	1.3	.8	.7	.7	.7	-.1	-.2	-1.0	.0	-1.9	-1.2	-1.2	-1.5	-1.0	-.5
-2.2	-1.7	-.9	-.7	-.6	-2.0	-1.7	-2.0	-1.4	-1.9	-4.2	-3.5	-3.4	-4.3	-4.3	-3.7	-3.8	-4.1	-4.6	-5.2	-3.8	-.8	.9	.1	-.9	-2.3	-5.7	-5.0	-4.4	-6.2	-7.2	-7.2	-8.3	-7.0	-4.6	-3.3
-6.2	-3.2	-1.4	-.9	-.5	-.1	-.1	-.4	-.3	-1.6	-8.6	-11.0	-10.0	-8.0	-2.7	-1.6	-.6	-1.1	-4.9	-8.2	-10.1	-4.8	-1.6	-3.8	-5.4	-6.4	-4.9	-5.9	-8.4	-9.8	-8.2	-10.4	-12.3	-13.3	-13.2	-9.1
-11.1	-10.2	-5.8	-4.4	-.4	-1.3	-.7	.0	.3	.0	-5.3	-8.3	-8.5	-6.0	.1	.7	.7	.7	.2	-6.0	-10.6	-7.0	-7.1	-7.6	-4.1	-4.8	-3.8	-1.8	-.5	-2.3	-3.7	-3.9	-4.3	-3.6	-6.1	-10.3
-2.8	-4.2	-5.8	-5.5	-3.0	-1.1	-.6	-.2	.0	.2	.3	-1.3	-3.8	-6.0	-3.5	-.8	.2	.7	.4	-1.6	-6.5	-3.6	-3.8	-2.0	-2.2	-1.1	-.5	.1	.2	-1.5	-2.6	-.9	-1.2	-.4	-1.4	-2.1
-1.6	-3.0	-1.8	-2.8	-5.0	-3.7	-2.8	-2.2	-1.2	-.2	.5	-1.8	-2.1	-2.2	-3.8	-3.4	-2.5	-1.3	-.6	.1	-1.0	-2.6	-2.1	-1.9	-1.2	-1.2	-.5	.0	.2	.1	-.9	-.7	-.2	-1.1	-.4	-.1
-.5	-1.6	-2.5	-2.2	-1.9	-2.6	-2.2	-1.9	-1.5	-1.2	-1.7	-2.3	-2.1	-1.6	-1.5	-1.6	-1.6	-1.4	-1.8	-1.9	-2.1	-2.0	-1.8	-2.2	-2.6	-2.7	-2.6	-2.6	-2.0	-1.4	-1.5	-1.3	-1.5	-1.4	-1.9	-1.4
-1.1	-1.0	-1.6	-1.4	-1.2	-1.6	-2.0	-1.8	-1.6	-1.7	-2.0	-2.0	-1.6	-1.0	-1.1	-1.0	-.5	-1.0	-.9	-1.0	-1.3	-1.4	-1.4	-1.4	-1.3	-1.7	-1.8	-1.5	-1.4	-1.2	-1.4	-1.6	-1.8	-2.1	-2.0	-2.0
-1.3	-.9	-1.2	-1.0	-.9	-.9	-1.5	-1.6	-1.6	-1.2	-1.1	-2.0	-2.0	-1.4	-1.2	-.7	-.5	-.8	-.7	-.7	-.7	-.7	-.6	-.4	-.4	-.8	-.6	-.3	-.2	-.2	-.6	-.9	-1.0	-1.3	-1.8	-1.9
-.9	-.6	-.8	-.7	-.5	-.9	-1.3	-1.2	-1.3	-1.0	-1.1	-.8	-.6	-.1	.0	.0	.0	-.2	-.2	.0	.3	.4	.4	.2	.2	.1	.0	.1	.4	.6	.6	.7	.6	.4	-.3	-.9
-.1	-.2	-.3	-.4	-.1	.0	-.2	-.1	.3	.7	.8	.9	.9	1.0	1.0	.9	.8	.7	.7	.8	.8	.7	.6	.6	.6	.7	.7	.8	.8	.9	.9	.9	.9	.7	.1	-.1

Figure 59. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS15 (700 hPa)
NOAA18, using all observations



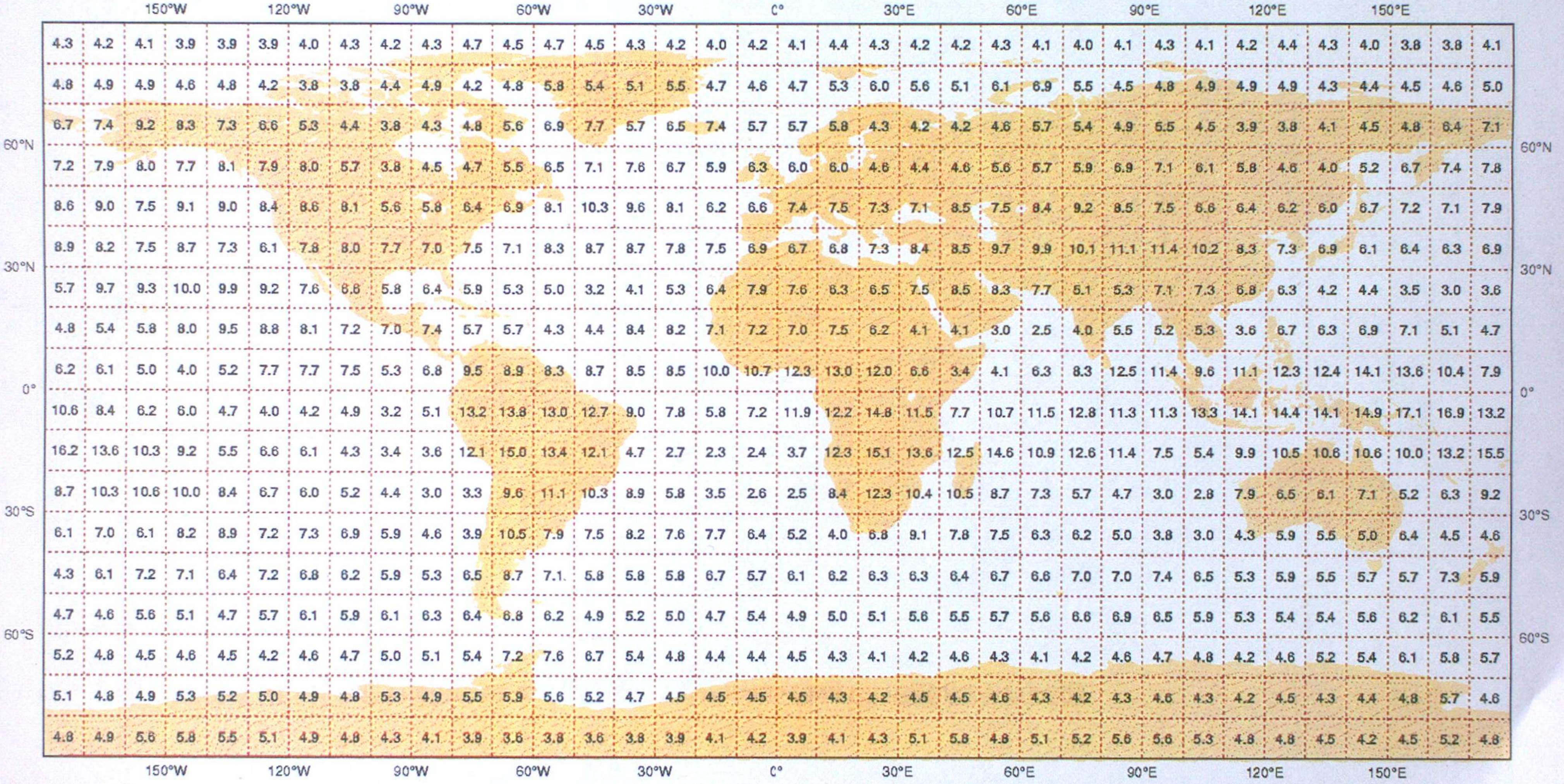
.9	1.0	1.1	1.2	1.2	1.0	1.1	1.3	1.2	1.2	1.1	1.2	1.2	1.3	1.0	.9	1.0	1.3	1.3	1.4	1.6	1.8	1.7	1.8	1.5	1.4	1.5	1.6	1.4	1.1	1.1	1.1	1.0	.9	.7	.7
2.1	2.4	2.3	2.4	2.3	1.8	1.4	1.4	1.8	2.2	1.8	2.0	2.5	2.6	2.0	2.3	2.3	2.3	2.2	2.4	2.8	2.9	2.6	2.8	3.1	2.3	1.7	1.7	1.9	1.7	1.6	1.4	1.3	1.3	1.6	1.9
3.1	3.6	4.7	4.3	3.8	3.2	2.4	1.9	1.4	1.7	2.3	2.9	3.6	4.0	3.4	3.9	4.5	3.5	3.4	3.0	2.0	1.9	1.8	2.0	2.5	2.4	2.3	2.3	2.0	1.8	1.5	1.4	1.4	1.6	2.5	3.1
3.9	4.2	4.3	4.8	4.8	4.5	4.2	2.7	1.4	2.0	2.8	3.2	4.0	4.6	5.3	4.5	3.6	3.9	3.7	3.2	2.4	2.2	2.4	3.0	2.8	2.8	3.4	3.2	2.9	2.5	1.6	1.4	2.0	2.8	3.7	3.9
5.6	5.4	4.3	5.6	5.4	5.2	4.9	4.3	3.0	3.3	4.0	5.0	5.3	6.1	6.4	5.2	3.9	4.4	4.6	4.3	3.8	3.7	4.3	4.6	5.2	5.7	5.0	4.2	3.5	3.0	2.9	3.2	3.7	3.9	4.2	4.8
6.8	6.4	5.1	6.0	4.9	3.7	5.1	5.3	5.5	4.8	5.5	5.7	5.8	6.0	6.1	4.6	4.6	5.0	4.5	4.3	4.8	5.1	5.8	7.2	6.9	6.4	7.0	7.0	6.3	5.2	4.8	4.6	4.1	4.5	4.4	4.7
4.2	7.8	7.2	6.7	6.7	6.2	5.2	4.9	4.3	4.2	4.0	3.8	3.1	2.0	2.7	3.5	4.8	6.9	6.5	4.9	4.3	5.6	6.7	6.2	5.4	3.3	3.5	4.9	4.7	4.6	4.7	3.1	2.8	2.3	1.5	1.9
3.7	5.0	4.7	6.2	7.2	6.8	6.3	5.7	5.3	5.4	3.9	3.3	2.5	3.7	6.4	6.6	5.9	6.1	4.8	4.7	3.7	2.5	2.4	1.6	1.2	2.2	3.4	3.1	3.6	2.0	5.5	4.5	4.1	4.0	2.9	2.6
3.8	3.9	3.5	3.3	3.7	6.2	5.8	5.8	4.5	5.4	7.4	6.5	6.0	7.0	7.4	7.2	7.7	8.0	8.3	9.3	8.1	4.8	2.1	2.0	4.3	6.3	9.5	8.4	7.2	8.8	9.6	9.6	10.6	9.7	7.3	5.3
8.5	6.6	5.1	4.7	3.8	2.8	2.7	3.0	2.0	3.5	9.1	10.5	9.6	9.8	6.9	6.0	4.2	5.4	8.7	9.3	10.9	8.8	5.7	8.0	8.9	10.3	9.3	9.3	10.2	10.9	10.6	11.2	11.7	13.1	12.8	10.6
12.4	10.8	8.7	8.1	3.6	4.7	4.1	2.6	1.5	1.9	8.7	10.4	9.9	8.8	2.7	1.4	1.1	.9	1.8	9.4	11.0	10.1	9.9	11.2	8.1	9.6	8.9	5.7	3.7	7.2	7.5	8.3	8.6	8.0	10.2	12.5
6.9	8.0	8.7	8.5	7.0	5.0	4.3	3.5	2.8	1.6	1.6	7.0	8.2	8.2	7.0	4.7	2.6	1.3	1.5	6.6	9.5	8.1	8.8	6.8	6.2	4.3	3.3	1.9	1.6	6.4	6.0	5.4	5.9	3.9	5.1	6.9
4.7	5.6	4.9	6.2	7.3	6.0	5.8	5.4	4.4	3.0	2.4	7.8	6.4	5.7	6.7	6.2	6.0	4.6	3.6	2.8	5.4	6.9	6.0	5.8	4.7	4.7	3.3	2.2	1.8	3.1	5.0	4.5	4.2	4.6	3.0	3.2
2.6	4.1	5.2	5.0	4.5	5.3	4.8	4.5	4.2	3.7	4.4	5.9	4.8	4.3	4.0	4.0	4.4	3.7	3.9	4.0	4.1	4.1	4.5	4.7	5.0	5.0	4.5	4.6	4.3	3.5	4.0	3.9	4.1	4.0	4.6	4.0
3.1	2.9	3.4	3.2	2.9	3.3	3.5	3.7	3.8	3.9	4.1	4.3	3.9	2.8	2.9	2.6	2.2	2.5	2.3	2.3	2.7	3.1	3.2	3.5	3.3	3.8	3.6	3.3	3.4	2.9	3.3	3.3	3.6	3.9	3.6	3.7
2.7	2.4	2.4	2.4	2.2	2.1	2.6	2.7	2.6	2.7	2.9	3.6	3.9	3.4	2.7	2.0	1.7	1.9	1.9	1.9	1.7	1.7	1.8	1.9	1.9	1.9	1.9	2.0	1.8	1.7	1.8	2.1	2.4	2.8	3.0	3.2
2.0	2.1	2.4	2.5	2.3	2.3	2.3	2.3	2.4	2.3	2.5	2.5	2.2	1.9	1.6	1.2	1.3	1.4	1.4	1.1	.9	.8	.7	.8	1.0	1.1	.9	.9	.7	.6	.6	.7	.9	1.3	2.1	1.9
1.6	1.8	2.2	2.5	2.3	2.0	1.9	1.6	1.3	1.0	.9	.8	.8	.7	.7	.7	.7	.7	.6	.6	.6	.6	.6	.7	.8	.8	.7	.6	.6	.6	.7	.6	.7	1.1	1.4	1.4

Figure 60. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS11 (500 - 700 hPa)
NOAA18, using all observations



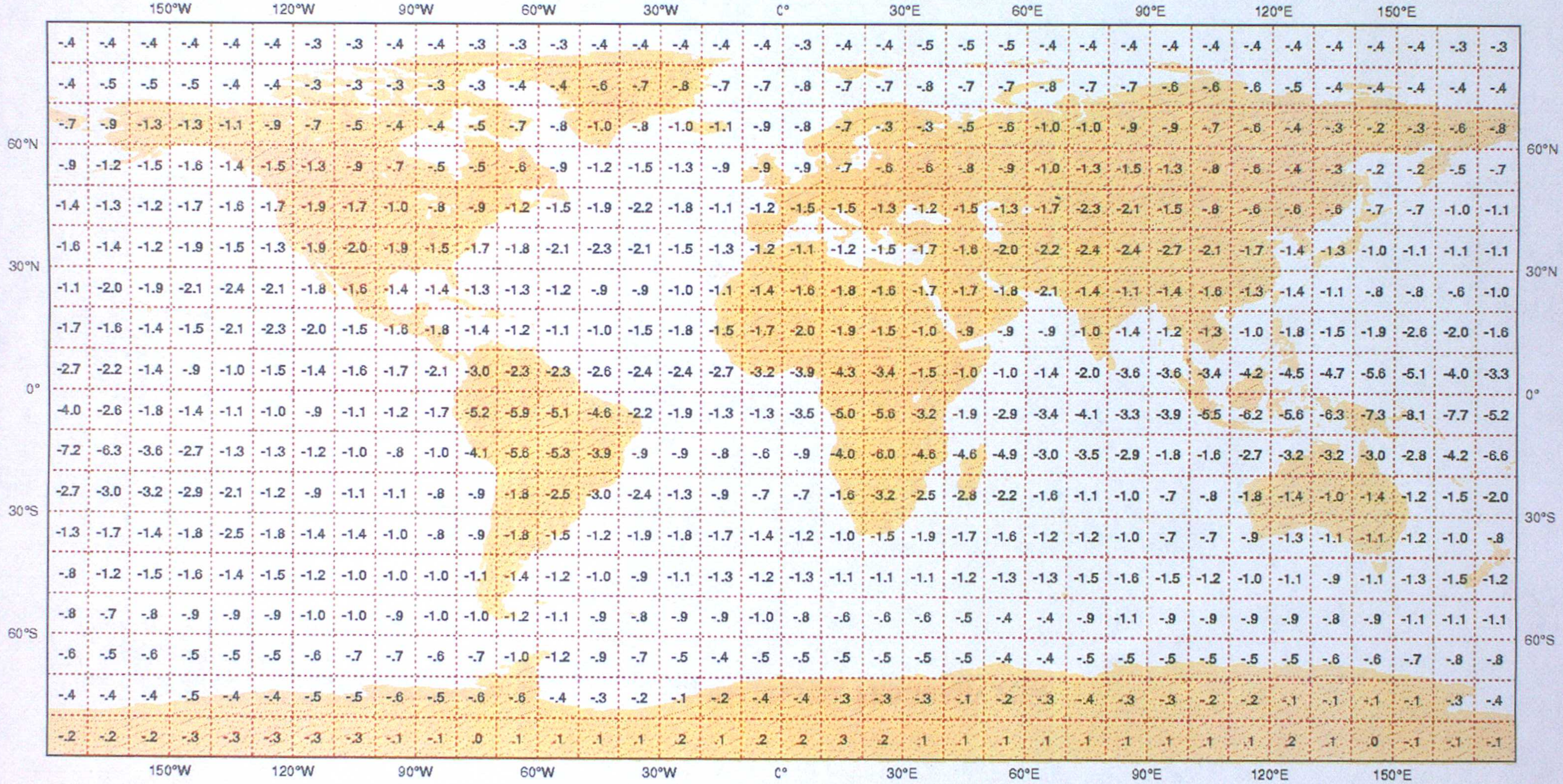
-4.4	-4.4	-4.3	-4.3	-4.2	-4.0	-3.9	-3.9	-3.7	-3.8	-3.4	-3.7	-3.5	-3.4	-2.8	-3.3	-4.0	-4.4	-4.3	-4.6	-4.4	-4.1	-4.0	-4.4	-4.0	-3.7	-4.3	-4.7	-4.4	-4.8	-4.7	-4.3	-3.9	-3.8	-3.8	-4.0
-4.0	-4.2	-4.1	-4.0	-3.9	-3.7	-3.3	-3.6	-4.0	-3.7	-2.7	-2.7	-2.7	-3.7	-3.4	-3.2	-4.5	-4.4	-4.9	-4.9	-5.1	-5.2	-4.8	-4.9	-5.2	-4.6	-4.5	-4.4	-4.4	-4.1	-4.4	-4.3	-4.0	-4.2	-4.1	-4.1
-5.7	-6.1	-7.8	-6.5	-5.3	-4.9	-4.3	-3.8	-3.2	-3.4	-3.6	-4.1	-4.9	-4.9	-4.1	-4.9	-5.0	-4.1	-4.5	-4.4	-2.9	-2.7	-2.7	-3.1	-4.3	-4.5	-4.8	-4.8	-4.0	-3.4	-2.7	-2.2	-2.8	-3.7	-5.4	-6.7
-6.0	-6.2	-6.2	-6.3	-5.9	-6.1	-5.6	-3.7	-3.2	-3.5	-3.9	-4.0	-5.6	-6.2	-5.9	-4.4	-3.2	-3.5	-3.8	-3.7	-2.8	-2.9	-3.4	-4.0	-4.0	-4.0	-4.8	-5.1	-4.3	-3.9	-3.3	-2.4	-4.0	-4.8	-5.7	-6.7
-6.1	-5.4	-4.6	-6.2	-5.3	-5.3	-6.1	-5.1	-3.3	-3.9	-4.3	-5.0	-5.8	-7.3	-6.8	-5.1	-2.8	-3.7	-4.7	-5.2	-4.8	-4.8	-6.0	-4.8	-5.1	-6.6	-4.8	-2.1	-1.6	-2.2	-2.8	-3.4	-4.4	-5.3	-5.3	-5.9
-4.8	-4.1	-3.7	-5.8	-3.6	-2.5	-3.8	-4.4	-4.8	-3.5	-4.4	-4.3	-5.1	-5.5	-5.3	-3.8	-3.2	-3.2	-3.0	-3.0	-3.6	-5.1	-5.5	-6.0	-6.4	-7.2	-6.1	-7.7	-6.5	-5.3	-4.5	-4.0	-2.8	-3.2	-2.6	-3.0
-1.2	-4.5	-4.8	-4.7	-6.2	-5.1	-3.5	-2.9	-1.8	-1.7	-1.5	-1.2	-1.0	-.4	-1.0	-1.6	-2.0	-3.3	-3.2	-3.0	-3.1	-3.8	-4.4	-4.1	-3.7	-1.1	.1	-1.8	-1.9	-2.2	-2.4	-1.0	-.3	-.2	-.1	-.7
-1.6	-2.1	-1.8	-3.1	-5.0	-5.1	-3.5	-2.7	-2.2	-2.2	-.8	-.1	-.5	-1.3	-4.0	-4.1	-2.7	-2.4	-2.5	-2.8	-1.8	.4	.1	-.4	-.1	-.2	-1.3	-1.1	-1.1	.2	-2.1	-1.3	-1.7	-2.7	-1.8	-1.2
-3.5	-2.7	-1.5	-.8	-1.0	-2.7	-2.5	-2.9	-2.1	-2.5	-4.8	-4.7	-3.8	-4.5	-3.9	-3.9	-4.2	-4.9	-6.4	-7.0	-4.9	.2	.6	-.4	-1.6	-3.2	-7.0	-6.4	-5.6	-7.4	-8.2	-8.4	-10.7	-8.8	-5.9	-4.9
-7.0	-4.1	-2.3	-1.6	-1.2	-.6	-.7	-1.1	-.7	-1.4	-9.3	-12.4	-11.0	-10.4	-4.0	-2.5	-1.2	-1.5	-5.8	-8.5	-11.2	-5.7	-2.1	-4.3	-6.4	-7.5	-5.6	-7.1	-10.3	-11.8	-10.3	-12.3	-14.3	-15.4	-15.2	-9.8
-13.3	-11.6	-6.4	-4.8	-1.2	-2.1	-1.2	-.5	-.2	-.5	-7.3	-10.7	-10.9	-7.5	-.6	-.1	.0	.3	.0	-6.9	-12.8	-9.2	-8.7	-9.1	-4.8	-6.0	-4.4	-2.2	-1.3	-3.7	-5.3	-5.7	-5.7	-3.6	-6.9	-11.9
-3.8	-4.9	-5.9	-5.8	-3.3	-1.7	-1.0	-.9	-.6	.1	.1	-2.3	-4.6	-6.7	-4.0	-1.1	-.1	.3	.5	-2.1	-7.0	-4.0	-4.9	-2.8	-2.2	-1.2	-.8	.0	.1	-2.4	-2.2	-1.9	-2.9	-1.1	-1.8	-2.6
-2.0	-3.2	-1.9	-3.4	-5.2	-3.5	-3.0	-2.6	-1.5	-.7	-.3	-4.1	-2.9	-2.6	-4.3	-3.8	-3.3	-2.2	-1.2	-.5	-2.0	-3.3	-2.8	-2.5	-1.6	-1.6	-1.0	-.3	-.1	-.6	-1.9	-1.6	-2.2	-2.2	-.9	-.7
-1.2	-2.4	-3.4	-3.2	-2.7	-3.7	-3.0	-2.6	-2.2	-2.0	-2.9	-4.4	-3.3	-2.4	-2.6	-2.9	-3.4	-3.1	-3.4	-3.2	-3.3	-3.1	-3.0	-3.2	-3.5	-4.0	-4.4	-4.2	-3.3	-2.4	-2.7	-2.0	-2.5	-2.7	-3.3	-2.6
-2.6	-2.2	-3.1	-2.9	-2.9	-3.5	-3.9	-3.5	-3.4	-3.6	-4.0	-4.2	-3.7	-2.9	-3.4	-3.8	-3.8	-4.4	-4.0	-3.8	-4.0	-3.7	-3.4	-3.2	-3.3	-4.5	-4.9	-4.3	-4.1	-3.9	-3.9	-3.5	-3.5	-4.2	-3.9	-3.9
-3.7	-3.3	-3.7	-3.4	-3.3	-3.4	-4.1	-3.9	-3.9	-3.4	-3.4	-5.2	-5.6	-4.6	-4.5	-4.0	-3.7	-3.9	-3.9	-3.9	-3.9	-4.0	-4.0	-3.3	-3.5	-4.0	-3.6	-3.1	-3.2	-3.3	-4.1	-4.4	-4.2	-4.4	-4.9	-4.8
-4.3	-3.7	-3.8	-3.8	-3.5	-4.0	-4.5	-4.3	-4.5	-3.9	-4.4	-4.3	-4.0	-3.4	-3.6	-3.5	-3.5	-3.9	-3.6	-3.2	-2.4	-2.2	-2.2	-2.9	-2.9	-3.1	-3.2	-3.3	-2.3	-1.9	-1.5	-1.2	-1.6	-2.1	-3.7	-4.6
-3.9	-4.0	-4.4	-4.4	-3.5	-3.6	-4.0	-3.7	-2.7	-1.9	-1.7	-1.8	-1.5	-1.4	-1.2	-1.1	-1.5	-1.7	-1.5	-1.3	-1.0	-1.7	-2.3	-2.2	-2.2	-1.8	-1.7	-1.5	-1.2	-.9	-.9	-1.1	-1.4	-1.9	-3.6	-3.9

Figure 61. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS11 (500 - 700 hPa)
NOAA18, using all observations



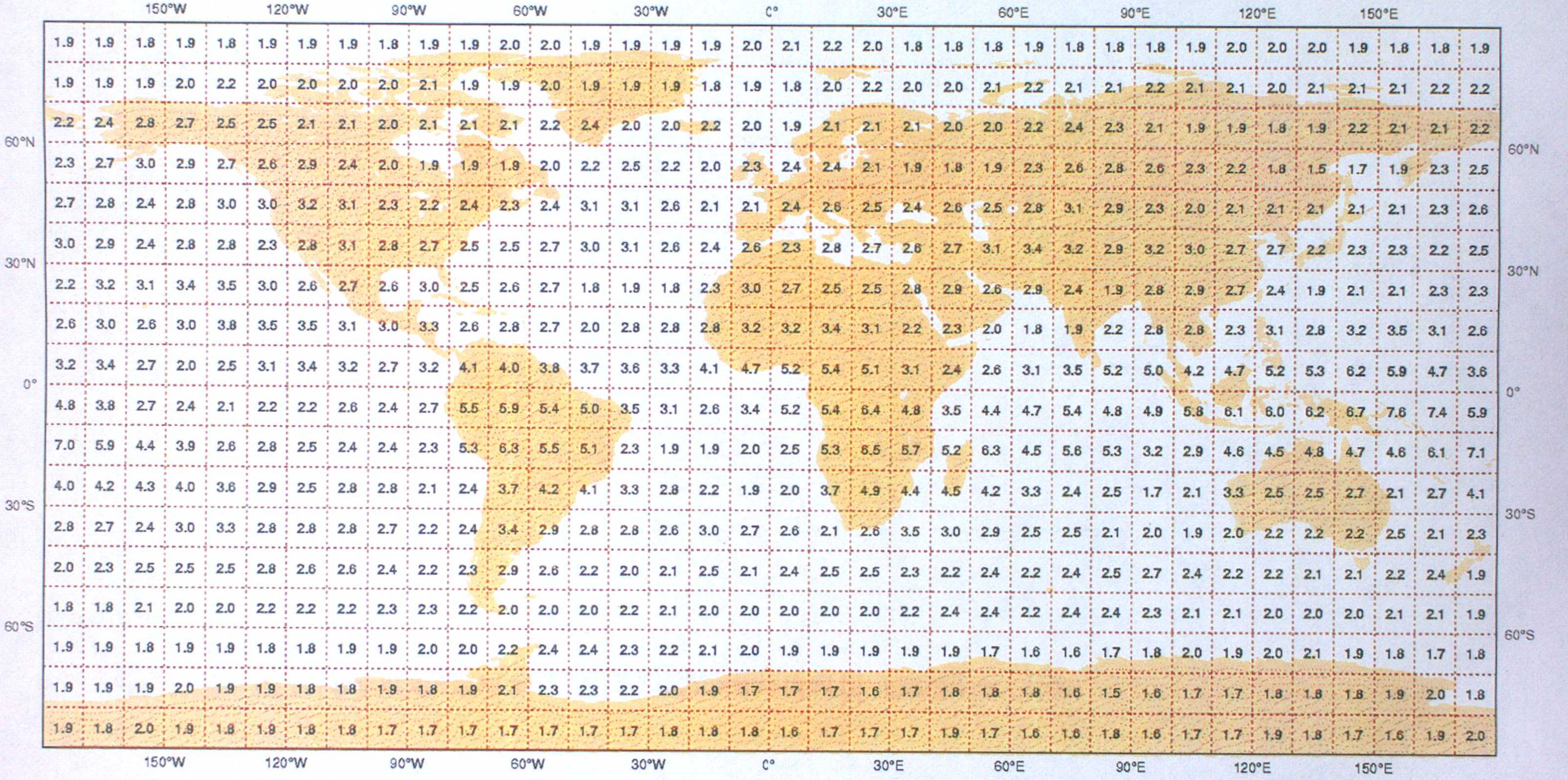
4.3	4.2	4.1	3.9	3.9	3.9	4.0	4.3	4.2	4.3	4.7	4.5	4.7	4.5	4.3	4.2	4.0	4.2	4.1	4.4	4.3	4.2	4.2	4.3	4.1	4.0	4.1	4.3	4.1	4.2	4.4	4.3	4.0	3.8	3.8	4.1
4.8	4.9	4.9	4.6	4.8	4.2	3.8	3.8	4.4	4.9	4.2	4.8	5.8	5.4	5.1	5.5	4.7	4.6	4.7	5.3	6.0	5.6	5.1	6.1	6.9	5.5	4.5	4.8	4.9	4.9	4.9	4.3	4.4	4.5	4.6	5.0
6.7	7.4	9.2	8.3	7.3	6.6	5.3	4.4	3.8	4.3	4.8	5.6	6.9	7.7	5.7	6.5	7.4	5.7	5.7	5.8	4.3	4.2	4.2	4.6	5.7	5.4	4.9	5.5	4.5	3.9	3.8	4.1	4.5	4.8	6.4	7.1
7.2	7.9	8.0	7.7	8.1	7.9	8.0	5.7	3.8	4.5	4.7	5.5	6.5	7.1	7.6	6.7	5.9	6.3	6.0	6.0	4.6	4.4	4.6	5.6	5.7	5.9	6.9	7.1	6.1	5.8	4.6	4.0	5.2	6.7	7.4	7.8
8.6	9.0	7.5	9.1	9.0	8.4	8.6	8.1	5.6	5.8	6.4	6.9	8.1	10.3	9.6	8.1	6.2	6.6	7.4	7.5	7.3	7.1	8.5	7.5	8.4	9.2	8.5	7.5	6.6	6.4	6.2	6.0	6.7	7.2	7.1	7.9
8.9	8.2	7.5	8.7	7.3	6.1	7.8	8.0	7.7	7.0	7.5	7.1	8.3	8.7	8.7	7.8	7.5	6.9	6.7	6.8	7.3	8.4	8.5	9.7	9.9	10.1	11.1	11.4	10.2	8.3	7.3	6.9	6.1	6.4	6.3	6.9
5.7	9.7	9.3	10.0	9.9	9.2	7.6	6.6	5.8	6.4	5.9	5.3	5.0	3.2	4.1	5.3	6.4	7.9	7.6	6.3	6.5	7.5	8.5	8.3	7.7	5.1	5.3	7.1	7.3	6.8	6.3	4.2	4.4	3.5	3.0	3.6
4.8	5.4	5.8	8.0	9.5	8.8	8.1	7.2	7.0	7.4	5.7	5.7	4.3	4.4	8.4	8.2	7.1	7.2	7.0	7.5	6.2	4.1	4.1	3.0	2.5	4.0	5.5	5.2	5.3	3.6	6.7	6.3	6.9	7.1	5.1	4.7
6.2	6.1	5.0	4.0	5.2	7.7	7.7	7.5	5.3	6.8	9.5	8.9	8.3	8.7	8.5	8.5	10.0	10.7	12.3	13.0	12.0	6.6	3.4	4.1	6.3	8.3	12.5	11.4	9.6	11.1	12.3	12.4	14.1	13.6	10.4	7.9
10.6	8.4	6.2	6.0	4.7	4.0	4.2	4.9	3.2	5.1	13.2	13.8	13.0	12.7	9.0	7.8	5.8	7.2	11.9	12.2	14.8	11.5	7.7	10.7	11.5	12.8	11.3	11.3	13.3	14.1	14.4	14.1	14.9	17.1	16.9	13.2
16.2	13.6	10.3	9.2	5.5	6.6	6.1	4.3	3.4	3.6	12.1	15.0	13.4	12.1	4.7	2.7	2.3	2.4	3.7	12.3	15.1	13.6	12.5	14.6	10.9	12.6	11.4	7.5	5.4	9.9	10.5	10.6	10.6	10.0	13.2	15.5
8.7	10.3	10.6	10.0	8.4	6.7	6.0	5.2	4.4	3.0	3.3	9.6	11.1	10.3	8.9	5.8	3.5	2.6	2.5	8.4	12.3	10.4	10.5	8.7	7.3	5.7	4.7	3.0	2.8	7.9	6.5	6.1	7.1	5.2	6.3	9.2
6.1	7.0	6.1	8.2	8.9	7.2	7.3	6.9	5.9	4.6	3.9	10.5	7.9	7.5	8.2	7.6	7.7	6.4	5.2	4.0	6.8	9.1	7.8	7.5	6.3	6.2	5.0	3.8	3.0	4.3	5.9	5.5	5.0	6.4	4.5	4.6
4.3	6.1	7.2	7.1	6.4	7.2	6.8	6.2	5.9	5.3	6.5	8.7	7.1	5.8	5.8	5.8	6.7	5.7	6.1	6.2	6.3	6.3	6.4	6.7	6.6	7.0	7.0	7.4	6.5	5.3	5.9	5.5	5.7	5.7	7.3	5.9
4.7	4.6	5.6	5.1	4.7	5.7	6.1	5.9	6.1	6.3	6.4	6.8	6.2	4.9	5.2	5.0	4.7	5.4	4.9	5.0	5.1	5.6	5.5	5.7	5.6	6.6	6.9	6.5	5.9	5.3	5.4	5.4	5.6	6.2	6.1	5.5
5.2	4.8	4.5	4.6	4.5	4.2	4.6	4.7	5.0	5.1	5.4	7.2	7.6	6.7	5.4	4.8	4.4	4.4	4.5	4.3	4.1	4.2	4.6	4.3	4.1	4.2	4.6	4.7	4.8	4.2	4.6	5.2	5.4	6.1	5.8	5.7
5.1	4.8	4.9	5.3	5.2	5.0	4.9	4.8	5.3	4.9	5.5	5.9	5.6	5.2	4.7	4.5	4.5	4.5	4.5	4.3	4.2	4.5	4.5	4.6	4.3	4.2	4.3	4.6	4.3	4.2	4.5	4.3	4.4	4.8	5.7	4.6
4.8	4.9	5.6	5.8	5.5	5.1	4.9	4.8	4.3	4.1	3.9	3.6	3.8	3.6	3.8	3.9	4.1	4.2	3.9	4.1	4.3	5.1	5.8	4.8	5.1	5.2	5.6	5.6	5.3	4.8	4.8	4.5	4.2	4.5	5.2	4.8

Figure 62. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS4 (400 hPa)
NOAA18, using all observations



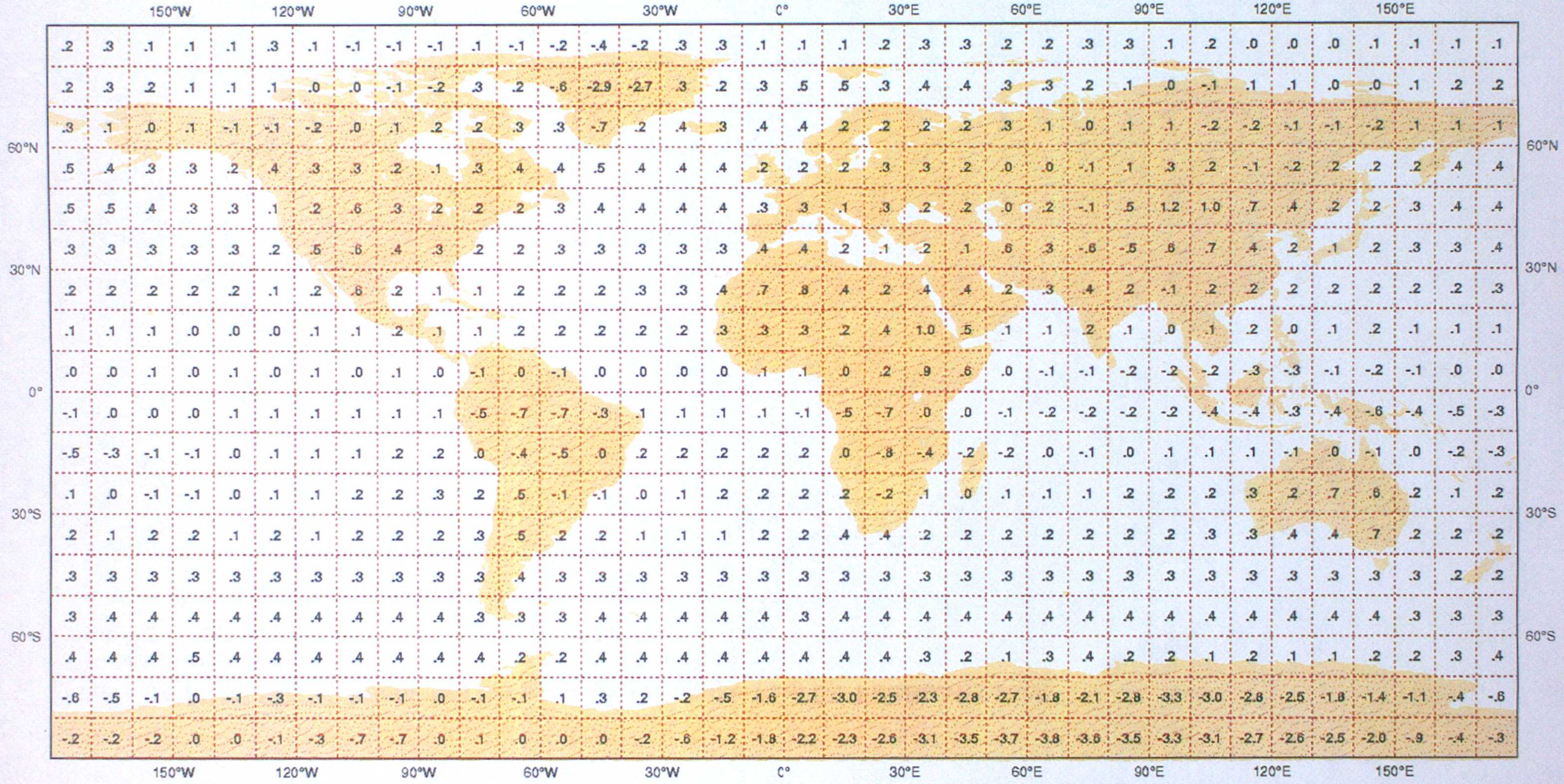
-.4	-.4	-.4	-.4	-.4	-.4	-.3	-.3	-.4	-.4	-.3	-.3	-.3	-.4	-.4	-.4	-.4	-.4	-.3	-.4	-.4	-.5	-.5	-.5	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.3	-.3
-.4	-.5	-.5	-.5	-.4	-.4	-.3	-.3	-.3	-.3	-.3	-.4	-.4	-.6	-.7	-.8	-.7	-.7	-.8	-.7	-.7	-.8	-.7	-.7	-.8	-.7	-.7	-.6	-.6	-.6	-.5	-.4	-.4	-.4	-.4	-.4
-.7	-.9	-1.3	-1.3	-1.1	-.9	-.7	-.5	-.4	-.4	-.5	-.7	-.8	-1.0	-.8	-1.0	-1.1	-.9	-.8	-.7	-.3	-.3	-.5	-.6	-1.0	-1.0	-.9	-.9	-.7	-.6	-.4	-.3	-.2	-.3	-.6	-.8
-.9	-1.2	-1.5	-1.6	-1.4	-1.5	-1.3	-.9	-.7	-.5	-.5	-.6	-.9	-1.2	-1.5	-1.3	-.9	-.9	-.9	-.7	-.6	-.6	-.8	-.9	-1.0	-1.3	-1.5	-1.3	-.8	-.6	-.4	-.3	-.2	-.2	-.5	-.7
-1.4	-1.3	-1.2	-1.7	-1.6	-1.7	-1.9	-1.7	-1.0	-.8	-.9	-1.2	-1.5	-1.9	-2.2	-1.8	-1.1	-1.2	-1.5	-1.5	-1.3	-1.2	-1.5	-1.3	-1.7	-2.3	-2.1	-1.5	-.8	-.6	-.6	-.6	-.7	-.7	-1.0	-1.1
-1.6	-1.4	-1.2	-1.9	-1.5	-1.3	-1.9	-2.0	-1.9	-1.5	-1.7	-1.8	-2.1	-2.3	-2.1	-1.5	-1.3	-1.2	-1.1	-1.2	-1.5	-1.7	-1.8	-2.0	-2.2	-2.4	-2.4	-2.7	-2.1	-1.7	-1.4	-1.3	-1.0	-1.1	-1.1	-1.1
-1.1	-2.0	-1.9	-2.1	-2.4	-2.1	-1.8	-1.6	-1.4	-1.4	-1.3	-1.3	-1.2	-.9	-.9	-1.0	-1.1	-1.4	-1.6	-1.8	-1.6	-1.7	-1.7	-1.8	-2.1	-1.4	-1.1	-1.4	-1.6	-1.3	-1.4	-1.1	-.8	-.8	-.6	-1.0
-1.7	-1.6	-1.4	-1.5	-2.1	-2.3	-2.0	-1.5	-1.6	-1.8	-1.4	-1.2	-1.1	-1.0	-1.5	-1.8	-1.5	-1.7	-2.0	-1.9	-1.5	-1.0	-.9	-.9	-.9	-1.0	-1.4	-1.2	-1.3	-1.0	-1.8	-1.5	-1.9	-2.6	-2.0	-1.6
-2.7	-2.2	-1.4	-.9	-1.0	-1.5	-1.4	-1.6	-1.7	-2.1	-3.0	-2.3	-2.3	-2.6	-2.4	-2.4	-2.7	-3.2	-3.9	-4.3	-3.4	-1.5	-1.0	-1.0	-1.4	-2.0	-3.6	-3.6	-3.4	-4.2	-4.5	-4.7	-5.6	-5.1	-4.0	-3.3
-4.0	-2.6	-1.8	-1.4	-1.1	-1.0	-.9	-1.1	-1.2	-1.7	-5.2	-5.9	-5.1	-4.6	-2.2	-1.9	-1.3	-1.3	-3.5	-5.0	-5.6	-3.2	-1.9	-2.9	-3.4	-4.1	-3.3	-3.9	-5.5	-6.2	-5.6	-6.3	-7.3	-8.1	-7.7	-5.2
-7.2	-6.3	-3.6	-2.7	-1.3	-1.3	-1.2	-1.0	-.8	-1.0	-4.1	-5.6	-5.3	-3.9	-.9	-.9	-.8	-.6	-.9	-4.0	-6.0	-4.6	-4.6	-4.9	-3.0	-3.5	-2.9	-1.8	-1.6	-2.7	-3.2	-3.2	-3.0	-2.8	-4.2	-6.6
-2.7	-3.0	-3.2	-2.9	-2.1	-1.2	-.9	-1.1	-1.1	-.8	-.9	-1.8	-2.5	-3.0	-2.4	-1.3	-.9	-.7	-.7	-1.6	-3.2	-2.5	-2.8	-2.2	-1.6	-1.1	-1.0	-.7	-.8	-1.8	-1.4	-1.0	-1.4	-1.2	-1.5	-2.0
-1.3	-1.7	-1.4	-1.8	-2.5	-1.8	-1.4	-1.4	-1.0	-.8	-.9	-1.8	-1.5	-1.2	-1.9	-1.8	-1.7	-1.4	-1.2	-1.0	-1.5	-1.9	-1.7	-1.6	-1.2	-1.2	-1.0	-.7	-.7	-.9	-1.3	-1.1	-1.1	-1.2	-1.0	-.8
-.8	-1.2	-1.5	-1.6	-1.4	-1.5	-1.2	-1.0	-1.0	-1.0	-1.1	-1.4	-1.2	-1.0	-.9	-1.1	-1.3	-1.2	-1.3	-1.1	-1.1	-1.1	-1.2	-1.3	-1.3	-1.5	-1.6	-1.5	-1.2	-1.0	-1.1	-.9	-1.1	-1.3	-1.5	-1.2
-.8	-.7	-.8	-.9	-.9	-.9	-1.0	-1.0	-.9	-1.0	-1.0	-1.2	-1.1	-.9	-.8	-.9	-.9	-1.0	-.8	-.6	-.6	-.6	-.5	-.4	-.4	-.9	-1.1	-.9	-.9	-.9	-.9	-.8	-.9	-1.1	-1.1	-1.1
-.6	-.5	-.6	-.5	-.5	-.5	-.6	-.7	-.7	-.6	-.7	-1.0	-1.2	-.9	-.7	-.5	-.4	-.5	-.5	-.5	-.5	-.5	-.5	-.4	-.4	-.5	-.5	-.5	-.5	-.5	-.5	-.6	-.6	-.7	-.8	-.8
-.4	-.4	-.4	-.5	-.4	-.4	-.5	-.5	-.6	-.5	-.6	-.6	-.4	-.3	-.2	-.1	-.2	-.4	-.4	-.3	-.3	-.3	-.1	-.2	-.3	-.4	-.3	-.3	-.2	-.2	-.1	-.1	-.1	-.1	-.3	-.4
-.2	-.2	-.2	-.3	-.3	-.3	-.3	-.3	-.1	-.1	.0	.1	.1	.1	.1	.2	.1	.2	.2	.3	.2	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.1	.0	-.1	-.1	-.1

Figure 63. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: HIRS4 (400 hPa)
NOAA18, using all observations



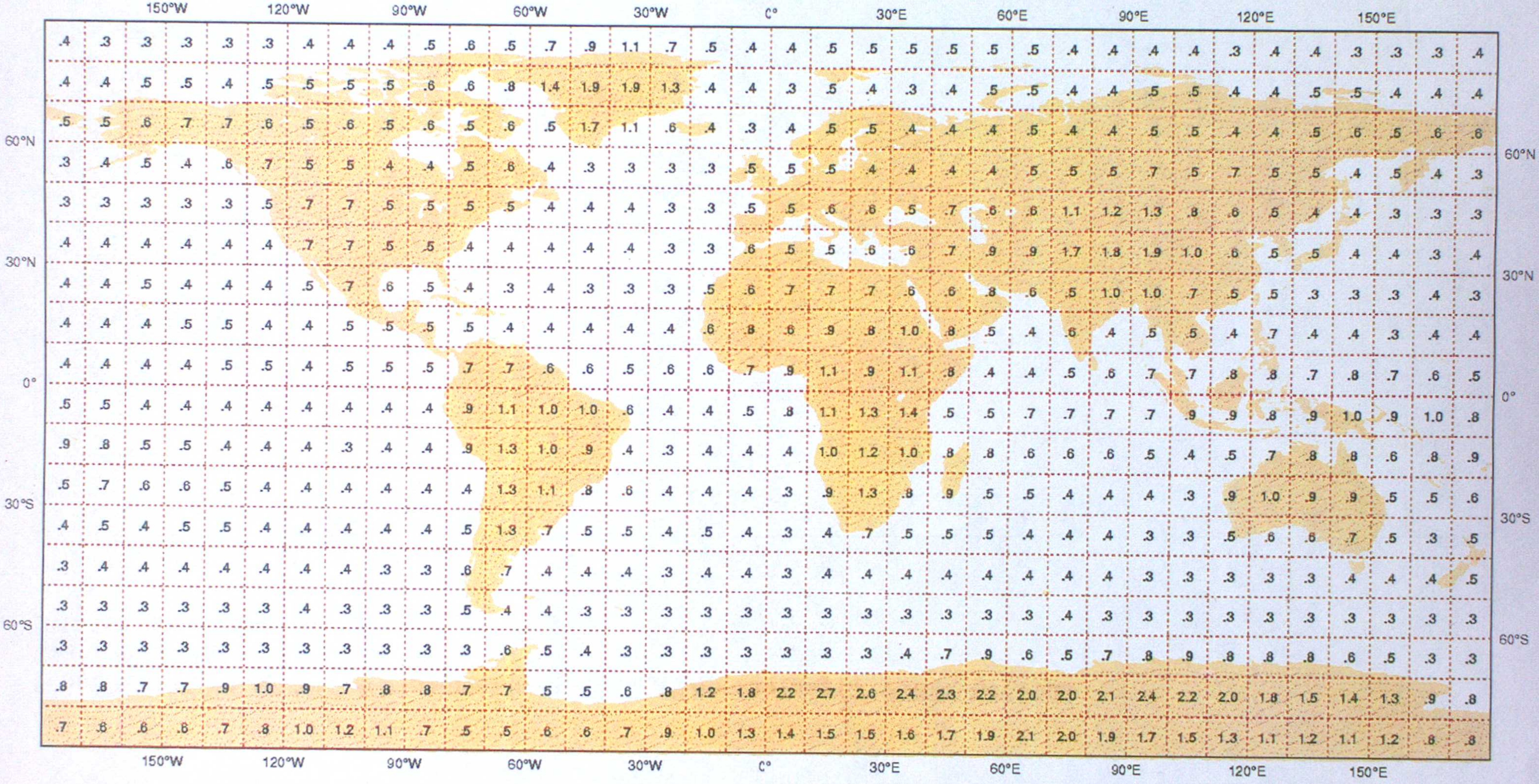
1.9	1.9	1.8	1.9	1.8	1.9	1.9	1.9	1.8	1.9	1.9	2.0	2.0	1.9	1.9	1.9	1.9	2.0	2.1	2.2	2.0	1.8	1.8	1.8	1.9	1.8	1.8	1.8	1.9	2.0	2.0	2.0	1.9	1.8	1.8	1.9
1.9	1.9	1.9	2.0	2.2	2.0	2.0	2.0	2.0	2.1	1.9	1.9	2.0	1.9	1.9	1.9	1.8	1.9	1.8	2.0	2.2	2.0	2.0	2.1	2.2	2.1	2.1	2.2	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.2
2.2	2.4	2.8	2.7	2.5	2.5	2.1	2.1	2.0	2.1	2.1	2.1	2.2	2.4	2.0	2.0	2.2	2.0	1.9	2.1	2.1	2.1	2.0	2.0	2.2	2.4	2.3	2.1	1.9	1.9	1.8	1.9	2.2	2.1	2.1	2.2
2.3	2.7	3.0	2.9	2.7	2.6	2.9	2.4	2.0	1.9	1.9	1.9	2.0	2.2	2.5	2.2	2.0	2.3	2.4	2.4	2.1	1.9	1.8	1.9	2.3	2.6	2.8	2.6	2.3	2.2	1.8	1.5	1.7	1.9	2.3	2.5
2.7	2.8	2.4	2.8	3.0	3.0	3.2	3.1	2.3	2.2	2.4	2.3	2.4	3.1	3.1	2.6	2.1	2.1	2.4	2.6	2.5	2.4	2.6	2.5	2.8	3.1	2.9	2.3	2.0	2.1	2.1	2.1	2.1	2.1	2.3	2.6
3.0	2.9	2.4	2.8	2.8	2.3	2.8	3.1	2.8	2.7	2.5	2.5	2.7	3.0	3.1	2.6	2.4	2.6	2.3	2.8	2.7	2.6	2.7	3.1	3.4	3.2	2.9	3.2	3.0	2.7	2.7	2.2	2.3	2.3	2.2	2.5
2.2	3.2	3.1	3.4	3.5	3.0	2.6	2.7	2.6	3.0	2.5	2.6	2.7	1.8	1.9	1.8	2.3	3.0	2.7	2.5	2.5	2.8	2.9	2.6	2.9	2.4	1.9	2.8	2.9	2.7	2.4	1.9	2.1	2.1	2.3	2.3
2.6	3.0	2.6	3.0	3.8	3.5	3.5	3.1	3.0	3.3	2.6	2.8	2.7	2.0	2.8	2.8	2.8	3.2	3.2	3.4	3.1	2.2	2.3	2.0	1.8	1.9	2.2	2.8	2.8	2.3	3.1	2.8	3.2	3.5	3.1	2.6
3.2	3.4	2.7	2.0	2.5	3.1	3.4	3.2	2.7	3.2	4.1	4.0	3.8	3.7	3.6	3.3	4.1	4.7	5.2	5.4	5.1	3.1	2.4	2.6	3.1	3.5	5.2	5.0	4.2	4.7	5.2	5.3	6.2	5.9	4.7	3.6
4.8	3.8	2.7	2.4	2.1	2.2	2.2	2.6	2.4	2.7	5.5	5.9	5.4	5.0	3.5	3.1	2.6	3.4	5.2	5.4	6.4	4.8	3.5	4.4	4.7	5.4	4.8	4.9	5.8	6.1	6.0	6.2	6.7	7.6	7.4	5.9
7.0	5.9	4.4	3.9	2.6	2.8	2.5	2.4	2.4	2.3	5.3	6.3	5.5	5.1	2.3	1.9	1.9	2.0	2.5	5.3	6.5	5.7	5.2	6.3	4.5	5.6	5.3	3.2	2.9	4.6	4.5	4.8	4.7	4.6	6.1	7.1
4.0	4.2	4.3	4.0	3.6	2.9	2.5	2.8	2.8	2.1	2.4	3.7	4.2	4.1	3.3	2.8	2.2	1.9	2.0	3.7	4.9	4.4	4.5	4.2	3.3	2.4	2.5	1.7	2.1	3.3	2.5	2.5	2.7	2.1	2.7	4.1
2.8	2.7	2.4	3.0	3.3	2.8	2.8	2.8	2.7	2.2	2.4	3.4	2.9	2.8	2.8	2.6	3.0	2.7	2.6	2.1	2.6	3.5	3.0	2.9	2.5	2.5	2.1	2.0	1.9	2.0	2.2	2.2	2.2	2.5	2.1	2.3
2.0	2.3	2.5	2.5	2.5	2.8	2.6	2.6	2.4	2.2	2.3	2.9	2.6	2.2	2.0	2.1	2.5	2.1	2.4	2.5	2.5	2.3	2.2	2.4	2.2	2.4	2.5	2.7	2.4	2.2	2.2	2.1	2.1	2.2	2.4	1.9
1.8	1.8	2.1	2.0	2.0	2.2	2.2	2.2	2.3	2.3	2.2	2.0	2.0	2.0	2.2	2.1	2.0	2.0	2.0	2.0	2.0	2.2	2.4	2.4	2.2	2.4	2.4	2.3	2.1	2.1	2.0	2.0	2.0	2.1	2.1	1.9
1.9	1.9	1.8	1.9	1.9	1.8	1.8	1.9	1.9	2.0	2.0	2.2	2.4	2.4	2.3	2.2	2.1	2.0	1.9	1.9	1.9	1.9	1.9	1.7	1.6	1.6	1.7	1.8	2.0	1.9	2.0	2.1	1.9	1.8	1.7	1.8
1.9	1.9	1.9	2.0	1.9	1.9	1.8	1.8	1.9	1.8	1.9	2.1	2.3	2.3	2.2	2.0	1.9	1.7	1.7	1.7	1.6	1.7	1.8	1.8	1.8	1.6	1.5	1.6	1.7	1.7	1.8	1.8	1.8	1.9	2.0	1.8
1.9	1.8	2.0	1.9	1.8	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.8	1.6	1.7	1.7	1.7	1.9	1.7	1.6	1.6	1.8	1.6	1.7	1.7	1.9	1.8	1.7	1.6	1.9	2.0

Figure 64. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-5 (700 hPa)
NOAA18, using all observations



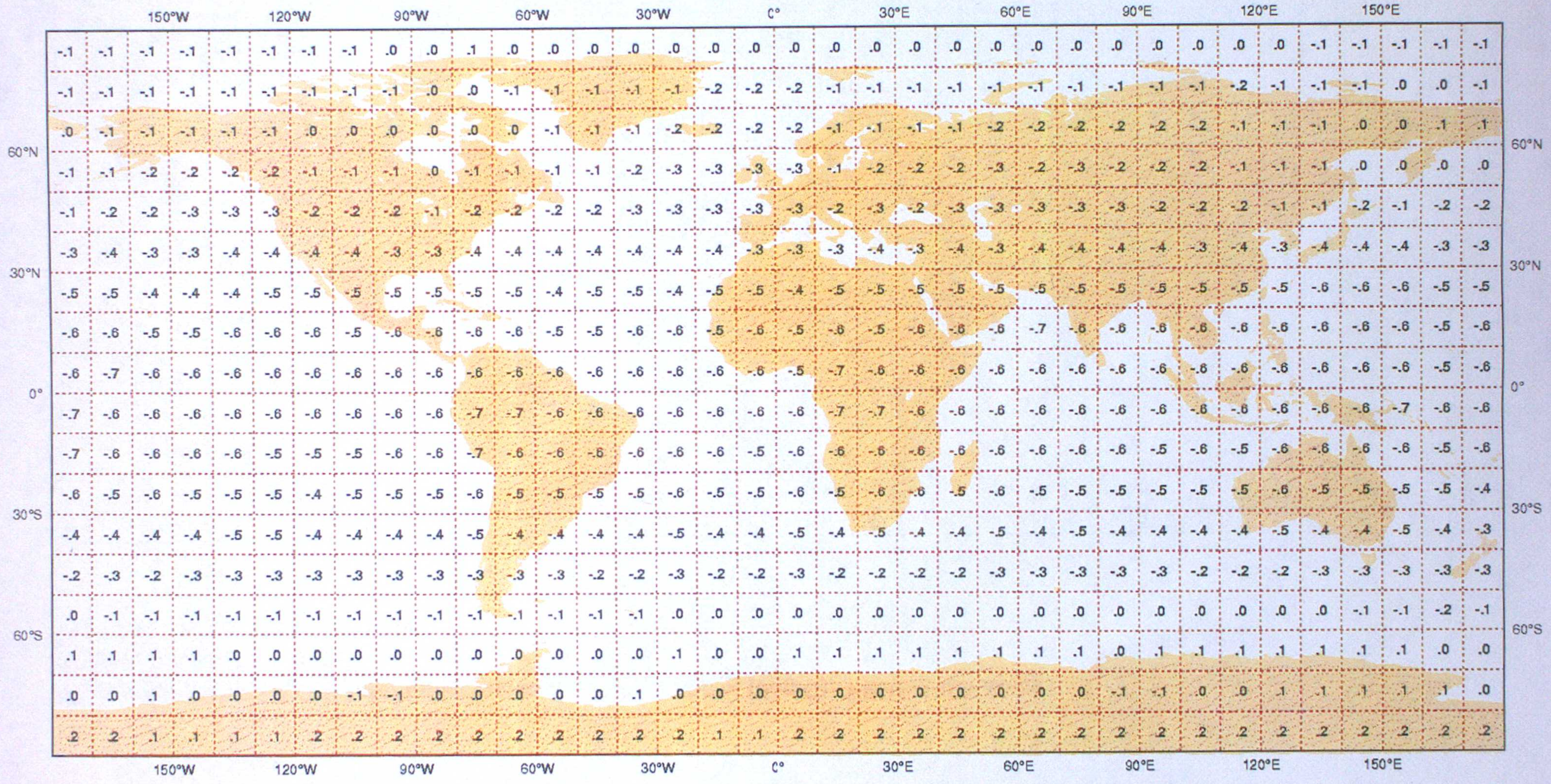
.2	.3	.1	.1	.1	.3	.1	-.1	-.1	-.1	.1	-.1	-.2	-.4	-.2	.3	.3	.1	.1	.1	.2	.3	.3	.2	.2	.3	.3	.1	.2	.0	.0	.0	.1	.1	.1	.1
.2	.3	.2	.1	.1	.1	.0	.0	-.1	-.2	.3	.2	-.6	-2.9	-2.7	.3	.2	.3	.5	.5	.3	.4	.4	.3	.3	.2	.1	.0	-.1	.1	.1	.0	.0	.1	.2	.2
.3	.1	.0	.1	-.1	-.1	-.2	.0	.1	.2	.2	.3	.3	-.7	.2	.4	.3	.4	.4	.2	.2	.2	.2	.3	.1	.0	.1	.1	-.2	-.2	-.1	-.1	-.2	.1	.1	.1
.5	.4	.3	.3	.2	.4	.3	.3	.2	.1	.3	.4	.4	.5	.4	.4	.4	.2	.2	.2	.3	.3	.2	.0	.0	-.1	.1	.3	.2	-.1	-.2	.2	.2	.2	.4	.4
.5	.5	.4	.3	.3	.1	.2	.6	.3	.2	.2	.2	.3	.4	.4	.4	.4	.3	.3	.1	.3	.2	.2	.0	.2	-.1	.5	1.2	1.0	.7	.4	.2	.2	.3	.4	.4
.3	.3	.3	.3	.3	.2	.5	.6	.4	.3	.2	.2	.3	.3	.3	.3	.3	.4	.4	.2	.1	.2	.1	.6	.3	-.6	-.5	.6	.7	.4	.2	.1	.2	.3	.3	.4
.2	.2	.2	.2	.2	.1	.2	.6	.2	.1	.1	.2	.2	.2	.3	.3	.4	.7	.8	.4	.2	.4	.4	.2	.3	.4	.2	-.1	.2	.2	.2	.2	.2	.2	.2	.3
.1	.1	.1	.0	.0	.0	.1	.1	.2	.1	.1	.2	.2	.2	.2	.2	.3	.3	.3	.2	.4	1.0	.5	.1	.1	.2	.1	.0	.1	.2	.0	.1	.2	.1	.1	.1
.0	.0	.1	.0	.1	.0	.1	.0	.1	.0	-.1	.0	-.1	.0	.0	.0	.0	.1	.1	.0	.2	.9	.6	.0	-.1	-.1	-.2	-.2	-.2	-.3	-.3	-.1	-.2	-.1	.0	.0
-.1	.0	.0	.0	.1	.1	.1	.1	.1	.1	-.5	-.7	-.7	-.3	.1	.1	.1	.1	-.1	-.5	-.7	.0	.0	-.1	-.2	-.2	-.2	-.2	-.4	-.4	-.3	-.4	-.6	-.4	-.5	-.3
-.5	-.3	-.1	-.1	.0	.1	.1	.1	.2	.2	.0	-.4	-.5	.0	.2	.2	.2	.2	.2	.0	-.8	-.4	-.2	-.2	.0	-.1	.0	.1	.1	.1	-.1	.0	-.1	.0	-.2	-.3
.1	.0	-.1	-.1	.0	.1	.1	.2	.2	.3	.2	.5	-.1	-.1	.0	.1	.2	.2	.2	.2	-.2	.1	.0	.1	.1	.1	.2	.2	.2	.3	.2	.7	.6	.2	.1	.2
.2	.1	.2	.2	.1	.2	.1	.2	.2	.2	.3	.5	.2	.2	.1	.1	.1	.2	.2	.4	.4	.2	.2	.2	.2	.2	.2	.2	.3	.3	.4	.4	.7	.2	.2	.2
.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.2	.2
.3	.4	.4	.4	.4	.4	.4	.4	.4	.4	.3	.3	.3	.4	.4	.4	.4	.4	.3	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.3	.3	.3
.4	.4	.4	.5	.4	.4	.4	.4	.4	.4	.4	.2	.2	.4	.4	.4	.4	.4	.4	.4	.4	.3	.2	.1	.3	.4	.2	.2	.1	.2	.1	.1	.2	.2	.3	.4
-.6	-.5	-.1	.0	-.1	-.3	-.1	-.1	-.1	.0	-.1	-.1	.1	.3	.2	-.2	-.5	-1.6	-2.7	-3.0	-2.5	-2.3	-2.8	-2.7	-1.8	-2.1	-2.8	-3.3	-3.0	-2.8	-2.5	-1.8	-1.4	-1.1	-.4	-.6
-.2	-.2	-.2	.0	.0	-.1	-.3	-.7	-.7	.0	.1	.0	.0	.0	-.2	-.6	-1.2	-1.8	-2.2	-2.3	-2.6	-3.1	-3.5	-3.7	-3.8	-3.6	-3.5	-3.3	-3.1	-2.7	-2.6	-2.5	-2.0	-.9	-.4	-.3

Figure 65. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-5 (700 hPa)
NOAA18, using all observations



.4	.3	.3	.3	.3	.3	.4	.4	.4	.5	.6	.5	.7	.9	1.1	.7	.5	.4	.4	.5	.5	.5	.5	.5	.5	.4	.4	.4	.4	.3	.4	.4	.3	.3	.3	.4
.4	.4	.5	.5	.4	.5	.5	.5	.5	.6	.6	.8	1.4	1.9	1.9	1.3	.4	.4	.3	.5	.4	.3	.4	.5	.5	.4	.4	.5	.5	.4	.4	.5	.5	.4	.4	.4
.5	.5	.6	.7	.7	.6	.5	.6	.5	.6	.5	.6	.5	1.7	1.1	.6	.4	.3	.4	.5	.5	.4	.4	.4	.5	.4	.4	.5	.5	.4	.4	.5	.6	.5	.6	.6
.3	.4	.5	.4	.6	.7	.5	.5	.4	.4	.5	.6	.4	.3	.3	.3	.3	.5	.5	.5	.4	.4	.4	.4	.5	.5	.5	.7	.5	.7	.5	.5	.4	.5	.4	.3
.3	.3	.3	.3	.3	.5	.7	.7	.5	.5	.5	.5	.4	.4	.4	.3	.3	.5	.5	.6	.6	.5	.7	.6	.6	1.1	1.2	1.3	.8	.6	.5	.4	.4	.3	.3	.3
.4	.4	.4	.4	.4	.4	.7	.7	.5	.5	.4	.4	.4	.4	.4	.3	.3	.6	.5	.5	.6	.6	.7	.9	.9	1.7	1.8	1.9	1.0	.6	.5	.5	.4	.4	.3	.4
.4	.4	.5	.4	.4	.4	.5	.7	.6	.5	.4	.3	.4	.3	.3	.3	.5	.6	.7	.7	.7	.6	.6	.8	.6	.5	1.0	1.0	.7	.5	.5	.3	.3	.3	.4	.3
.4	.4	.4	.5	.5	.4	.4	.5	.5	.5	.5	.4	.4	.4	.4	.4	.6	.8	.6	.9	.8	1.0	.8	.5	.4	.6	.4	.5	.5	.4	.7	.4	.4	.3	.4	.4
.4	.4	.4	.4	.5	.5	.4	.5	.5	.5	.7	.7	.6	.6	.5	.6	.6	.7	.9	1.1	.9	1.1	.8	.4	.4	.5	.6	.7	.7	.8	.8	.7	.8	.7	.6	.5
.5	.5	.4	.4	.4	.4	.4	.4	.4	.4	.9	1.1	1.0	1.0	.6	.4	.4	.5	.8	1.1	1.3	1.4	.5	.5	.7	.7	.7	.7	.9	.9	.8	.9	1.0	.9	1.0	.8
.9	.8	.5	.5	.4	.4	.4	.3	.4	.4	.9	1.3	1.0	.9	.4	.3	.4	.4	.4	1.0	1.2	1.0	.8	.8	.6	.6	.6	.5	.4	.5	.7	.8	.8	.6	.8	.9
.5	.7	.6	.6	.5	.4	.4	.4	.4	.4	.4	1.3	1.1	.8	.6	.4	.4	.4	.3	.9	1.3	.8	.9	.5	.5	.4	.4	.4	.3	.9	1.0	.9	.9	.5	.5	.6
.4	.5	.4	.5	.5	.4	.4	.4	.4	.4	.5	1.3	.7	.5	.5	.4	.5	.4	.3	.4	.7	.5	.5	.5	.4	.4	.4	.3	.3	.5	.6	.6	.7	.5	.3	.5
.3	.4	.4	.4	.4	.4	.4	.4	.3	.3	.6	.7	.4	.4	.4	.3	.4	.4	.3	.4	.4	.4	.4	.4	.4	.4	.4	.3	.3	.3	.3	.3	.4	.4	.4	.5
.3	.3	.3	.3	.3	.3	.4	.3	.3	.3	.5	.4	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.4	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3
.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.6	.5	.4	.3	.3	.3	.3	.3	.3	.3	.4	.7	.9	.6	.5	.7	.8	.9	.8	.8	.8	.6	.5	.3	.3
.8	.8	.7	.7	.9	1.0	.9	.7	.8	.8	.7	.7	.5	.5	.6	.8	1.2	1.8	2.2	2.7	2.6	2.4	2.3	2.2	2.0	2.0	2.1	2.4	2.2	2.0	1.8	1.5	1.4	1.3	.9	.8
.7	.6	.6	.6	.7	.8	1.0	1.2	1.1	.7	.5	.5	.6	.6	.7	.9	1.0	1.3	1.4	1.5	1.5	1.6	1.7	1.9	2.1	2.0	1.9	1.7	1.5	1.3	1.1	1.2	1.1	1.2	.8	.8

Figure 66. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-7 (300 hPa)
NOAA18, using all observations



-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	-.1	-.1	-.1	-.1	-.1
-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	.0	.0	-.1	-.1	-.1	-.1	-.1	-.2	-.2	-.2	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.2	-.1	-.1	-.1	.0	.0	-.1
.0	-.1	-.1	-.1	-.1	-.1	.0	.0	.0	.0	.0	.0	-.1	-.1	-.1	-.2	-.2	-.2	-.2	-.1	-.1	-.1	-.1	-.2	-.2	-.2	-.2	-.2	-.2	-.1	-.1	-.1	.0	.0	.1	.1
-.1	-.1	-.2	-.2	-.2	-.2	-.1	-.1	-.1	.0	-.1	-.1	-.1	-.1	-.2	-.3	-.3	-.3	-.3	-.1	-.2	-.2	-.2	-.3	-.2	-.3	-.2	-.2	-.2	-.1	-.1	-.1	.0	.0	.0	.0
-.1	-.2	-.2	-.3	-.3	-.3	-.2	-.2	-.2	-.1	-.2	-.2	-.2	-.2	-.3	-.3	-.3	-.3	-.3	-.2	-.3	-.2	-.3	-.3	-.3	-.3	-.3	-.2	-.2	-.2	-.1	-.1	-.2	-.1	-.2	-.2
-.3	-.4	-.3	-.3	-.4	-.4	-.4	-.4	-.3	-.3	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.3	-.3	-.3	-.4	-.3	-.4	-.3	-.4	-.4	-.4	-.4	-.3	-.4	-.3	-.4	-.4	-.4	-.3	-.3
-.5	-.5	-.4	-.4	-.4	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.4	-.5	-.5	-.4	-.5	-.5	-.4	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.6	-.6	-.6	-.5	-.5
-.6	-.6	-.5	-.5	-.6	-.6	-.6	-.5	-.6	-.6	-.6	-.6	-.5	-.5	-.6	-.6	-.5	-.6	-.5	-.6	-.5	-.6	-.6	-.6	-.7	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.5	-.6
-.6	-.7	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.5	-.7	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.5	-.6
-.7	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.7	-.7	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.7	-.7	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.7	-.6	-.6
-.7	-.6	-.6	-.6	-.6	-.5	-.5	-.5	-.6	-.6	-.7	-.6	-.6	-.6	-.6	-.6	-.6	-.5	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.6	-.5	-.6	-.5	-.6	-.6	-.6	-.6	-.5	-.6
-.6	-.5	-.6	-.5	-.5	-.5	-.4	-.5	-.5	-.5	-.6	-.5	-.5	-.5	-.5	-.6	-.5	-.5	-.6	-.5	-.6	-.6	-.5	-.6	-.5	-.5	-.5	-.5	-.5	-.5	-.6	-.5	-.5	-.5	-.5	-.4
-.4	-.4	-.4	-.4	-.5	-.5	-.4	-.4	-.4	-.4	-.5	-.4	-.4	-.4	-.4	-.5	-.4	-.4	-.5	-.4	-.5	-.4	-.4	-.5	-.4	-.5	-.4	-.4	-.4	-.4	-.5	-.4	-.4	-.5	-.4	-.3
-.2	-.3	-.2	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.2	-.2	-.3	-.2	-.2	-.3	-.2	-.2	-.2	-.2	-.3	-.3	-.3	-.3	-.3	-.2	-.2	-.2	-.3	-.3	-.3	-.3	-.3
.0	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	-.1	-.1	-.2	-.1
.1	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	.1	.1	.1	.1	.1	.1	.1	.0	.1	.1	.1	.1	.1	.1	.1	.0	.0
.0	.0	.1	.0	.0	.0	.0	-.1	-.1	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	-.1	-.1	.0	.0	.1	.1	.1	.1	.1	.0
.2	.2	.1	.1	.1	.1	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.1	.1	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2

Figure 67. ATOVS SD O-B brightness temperature differences (deg C). **FEBRUARY 2006**
Channel: AMSUA-7 (300 hPa)
NOAA18, using all observations

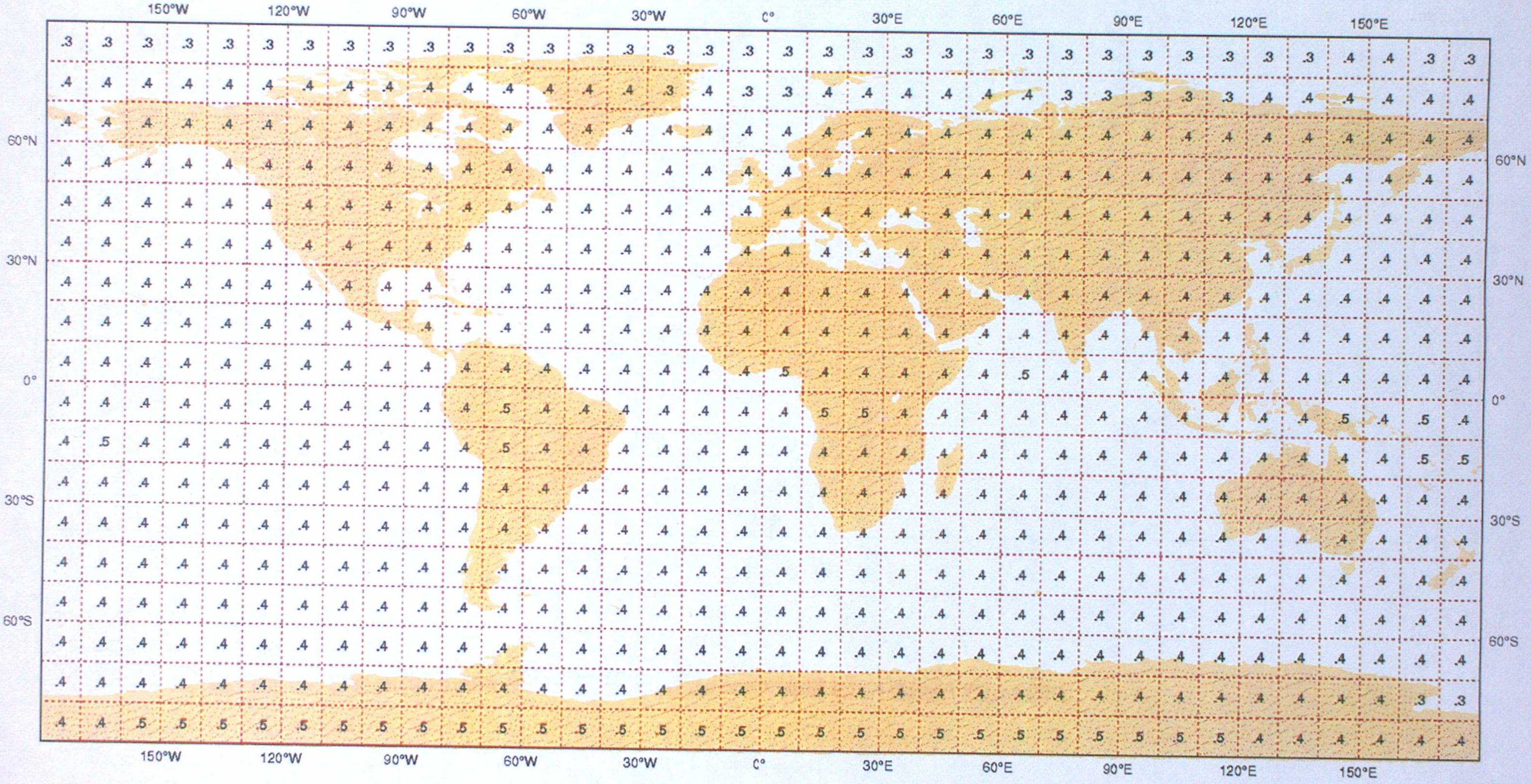
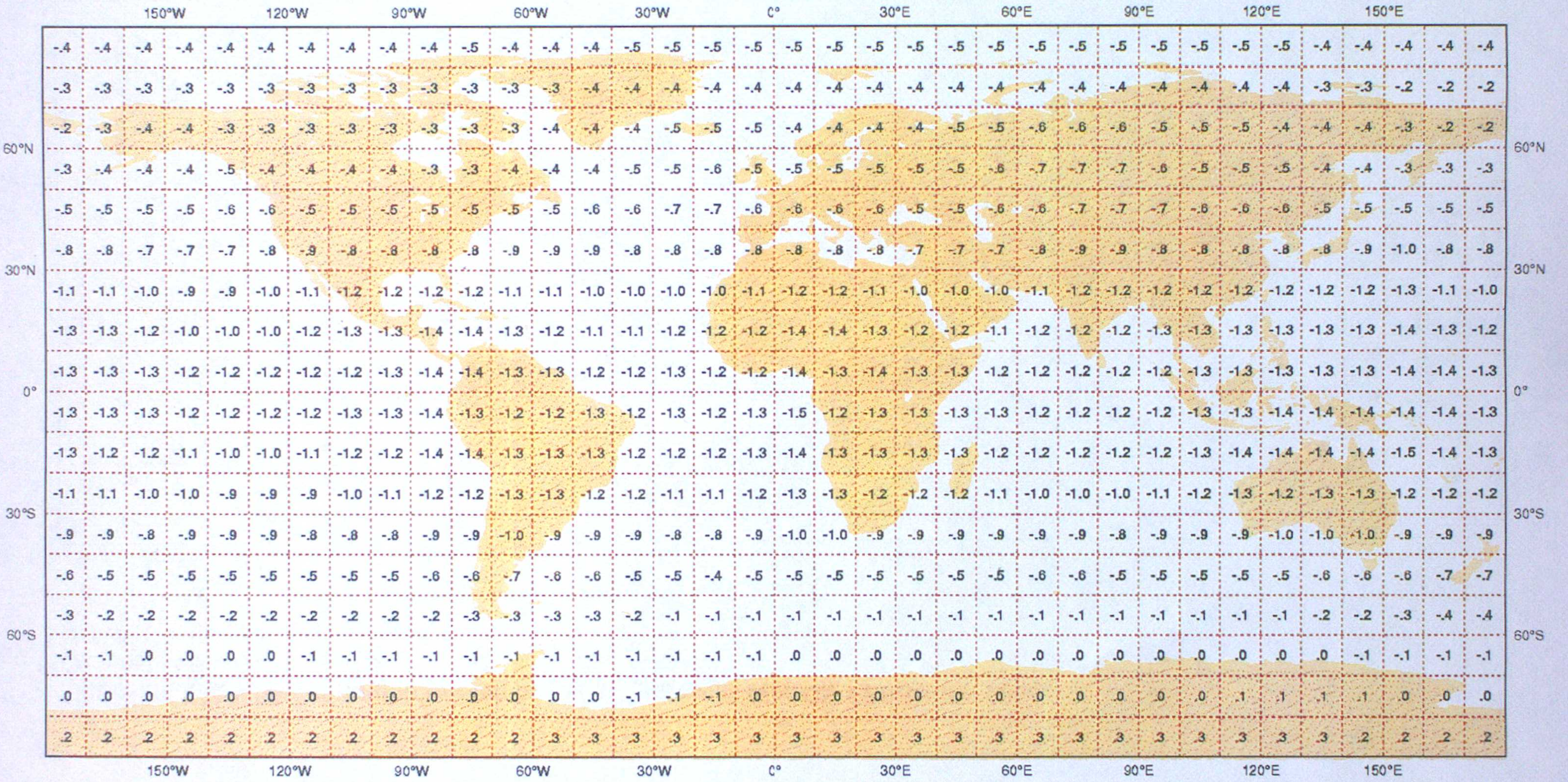

150°W
120°W
90°W
60°W
30°W
0°
30°E
60°E
90°E
120°E
150°E
60°N
30°N
0°
30°S
60°S

Figure 68. ATOVS MEAN O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-9 (100 hPa)
NOAA18, using all observations



-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.5	-.4	-.4	-.4	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.4	-.4	-.4	-.4	-.4
-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.4	-.3	-.3	-.2	-.2	-.2
-.2	-.3	-.4	-.4	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.3	-.4	-.4	-.4	-.5	-.5	-.5	-.4	-.4	-.4	-.4	-.5	-.5	-.6	-.6	-.6	-.5	-.5	-.5	-.4	-.4	-.4	-.3	-.2	-.2
-.3	-.4	-.4	-.4	-.5	-.4	-.4	-.4	-.4	-.3	-.3	-.4	-.4	-.4	-.5	-.5	-.6	-.5	-.5	-.5	-.5	-.5	-.5	-.6	-.7	-.7	-.7	-.6	-.5	-.5	-.5	-.4	-.4	-.3	-.3	-.3
-.5	-.5	-.5	-.5	-.6	-.6	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.6	-.6	-.7	-.7	-.6	-.6	-.6	-.6	-.5	-.5	-.6	-.6	-.7	-.7	-.7	-.6	-.6	-.6	-.5	-.5	-.5	-.5	-.5
-.8	-.8	-.7	-.7	-.7	-.8	-.9	-.8	-.8	-.8	-.8	-.9	-.9	-.9	-.8	-.8	-.8	-.8	-.8	-.8	-.8	-.7	-.7	-.7	-.8	-.9	-.9	-.8	-.8	-.8	-.8	-.8	-.9	-1.0	-.8	-.8
-1.1	-1.1	-1.0	-.9	-.9	-1.0	-1.1	-1.2	-1.2	-1.2	-1.2	-1.1	-1.1	-1.0	-1.0	-1.0	-1.0	-1.1	-1.2	-1.2	-1.1	-1.0	-1.0	-1.0	-1.1	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.2	-1.3	-1.1	-1.0
-1.3	-1.3	-1.2	-1.0	-1.0	-1.0	-1.2	-1.3	-1.3	-1.4	-1.4	-1.3	-1.2	-1.1	-1.1	-1.2	-1.2	-1.2	-1.4	-1.4	-1.3	-1.2	-1.2	-1.1	-1.2	-1.2	-1.2	-1.3	-1.3	-1.3	-1.3	-1.3	-1.3	-1.4	-1.3	-1.2
-1.3	-1.3	-1.3	-1.2	-1.2	-1.2	-1.2	-1.2	-1.3	-1.4	-1.4	-1.3	-1.3	-1.2	-1.2	-1.3	-1.2	-1.2	-1.4	-1.3	-1.4	-1.3	-1.3	-1.2	-1.2	-1.2	-1.2	-1.2	-1.3	-1.3	-1.3	-1.3	-1.3	-1.4	-1.4	-1.3
-1.3	-1.3	-1.3	-1.2	-1.2	-1.2	-1.2	-1.3	-1.3	-1.4	-1.3	-1.2	-1.2	-1.3	-1.2	-1.3	-1.2	-1.3	-1.5	-1.2	-1.3	-1.3	-1.3	-1.3	-1.2	-1.2	-1.2	-1.2	-1.3	-1.3	-1.4	-1.4	-1.4	-1.4	-1.4	-1.3
-1.3	-1.2	-1.2	-1.1	-1.0	-1.0	-1.1	-1.2	-1.2	-1.4	-1.4	-1.3	-1.3	-1.3	-1.2	-1.2	-1.2	-1.3	-1.4	-1.3	-1.3	-1.3	-1.3	-1.2	-1.2	-1.2	-1.2	-1.2	-1.3	-1.4	-1.4	-1.4	-1.4	-1.5	-1.4	-1.3
-1.1	-1.1	-1.0	-1.0	-.9	-.9	-.9	-1.0	-1.1	-1.2	-1.2	-1.3	-1.3	-1.2	-1.2	-1.1	-1.1	-1.2	-1.3	-1.3	-1.2	-1.2	-1.2	-1.1	-1.0	-1.0	-1.0	-1.1	-1.2	-1.3	-1.2	-1.3	-1.3	-1.2	-1.2	-1.2
-.9	-.9	-.8	-.9	-.9	-.9	-.8	-.8	-.8	-.9	-.9	-1.0	-.9	-.9	-.9	-.8	-.8	-.9	-1.0	-1.0	-.9	-.9	-.9	-.9	-.9	-.9	-.8	-.9	-.9	-.9	-1.0	-1.0	-1.0	-.9	-.9	-.9
-.6	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.6	-.6	-.7	-.6	-.6	-.5	-.5	-.4	-.5	-.5	-.5	-.5	-.5	-.5	-.5	-.6	-.6	-.5	-.5	-.5	-.5	-.5	-.6	-.6	-.6	-.7	-.7
-.3	-.2	-.2	-.2	-.2	-.2	-.2	-.2	-.2	-.2	-.3	-.3	-.3	-.3	-.2	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.2	-.2	-.3	-.4	-.4
-.1	-.1	.0	.0	.0	.0	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	-.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	-.1	-.1	-.1	-.1
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	-.1	-.1	-.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	.0
.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.3	.2	.2	.2	.2

Figure 69. ATOVS SD O-B brightness temperature differences (deg C). FEBRUARY 2006
Channel: AMSUA-9 (100 hPa)
NOAA18, using all observations

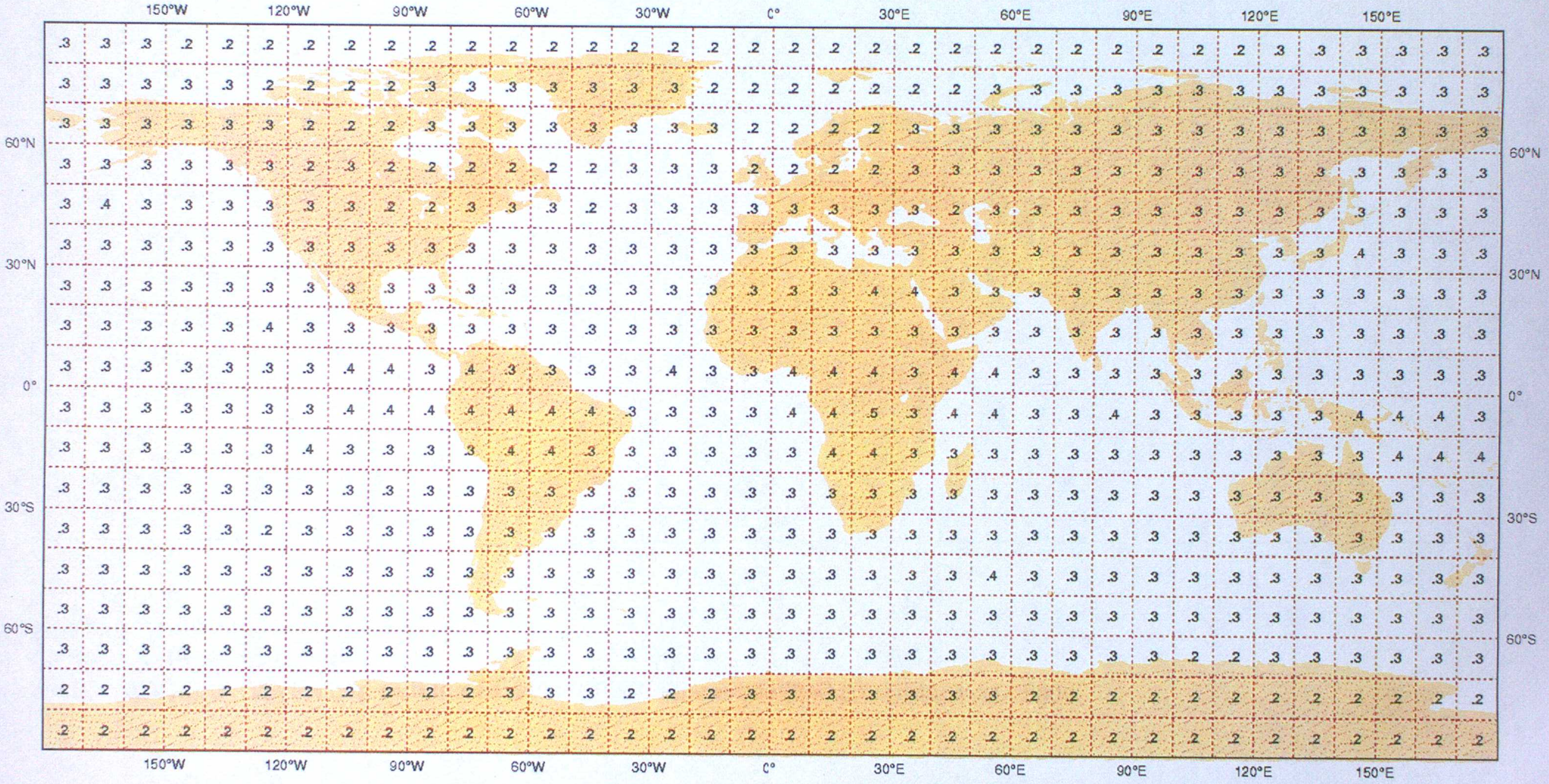

150°W
120°W
90°W
60°W
30°W
0°
30°E
60°E
90°E
120°E
150°E
60°N
30°N
0°
30°S
60°S
.3 .3 .3 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .2 .2 .2 .2 .3 .3 .3 .3 .3 .3 .3 .2 .2 .2 .2 .2 .2 .2 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .3 .2 .2 .2 .3 .3 .3 .3 .3 .3 .3 .3 .2 .2 .2 .2 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .3 .2 .3 .2 .2 .2 .2 .2 .2 .3 .3 .3 .2 .2 .2 .2 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .4 .3 .3 .3 .3 .3 .3 .2 .2 .3 .3 .3 .2 .3 .3 .3 .3 .3 .3 .3 .3 .2 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .4 .3 .3 .3
.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .4 .4 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .4 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .3 .3 .4 .4 .3 .4 .3 .3 .3 .3 .4 .3 .3 .4 .4 .4 .3 .4 .4 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .3 .3 .4 .4 .4 .4 .4 .4 .4 .3 .3 .3 .3 .4 .4 .5 .3 .4 .4 .3 .3 .4 .3 .3 .3 .3 .3 .4 .4 .4 .3
.3 .3 .3 .3 .3 .3 .4 .3 .3 .3 .3 .4 .4 .3 .3 .3 .3 .3 .3 .4 .4 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .4 .4 .4
.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .2 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .4 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3
.3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .3 .2 .2 .3 .3 .3 .3 .3 .3
.2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .3 .3 .3 .2 .2 .2 .3 .3 .3 .3 .3 .3 .3 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2
.2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2 .2

TABLE 8

MONTHLY MONITORING OF MARINE SURFACE OBSERVATIONS (COSNA)
DATA TYPE:- DRIFTER
MONITORING CENTRE: EXETER
MONTH: Feb 06

Monitoring procedures

Period :One calendar month.

Data monitored :Reports from each unique identifier for drifting buoy.

Area monitored :10°N - 80°N, 85°W - 0°W

Standard of comparison :Background field from UKMO global model.

Position :Average latitude and longitude for period.

Observation times :All hours combined.

Elements monitored
:Mean sea-level pressure (hPa)
:Wind speed ($m\ s^{-1}$)
:Wind direction (degrees)

Parameters monitored

:NOBS :Number of observations received excluding duplicates.

:NGE :Number of observations with gross errors.

:PGE :Percentage of observations with gross errors.

:SD :SD of difference of observations from background values excluding those with gross errors.

:BIAS :Mean difference of observations from background values excluding those with gross errors.
N.B. A positive bias indicates the wind observation is veered to the background

:RMS :Root Mean Square difference of observations from background values excluding those with gross errors

GROSS ERROR LIMITS
:15 hPa (pressure)
:25 $m\ s^{-1}$ (Vector Wind)

N.B. Observations of wind direction are only included in the wind direction statistics if the observed OR background wind speed > 5 $m\ s^{-1}$

IDENTIFIER	LAT.	LONG.	ELEM	NOBS	PGE	%REJ	SD	BIAS	RMS
13534	29.1	-46.9	P	671	0	0	0.6	-0.3	0.7
41501	17.3	-68.1	P	696	0	6	0.4	-0.7	0.8
41502	13.5	-62.9	P	692	0	7	0.4	-0.1	0.4
41525	26.7	-73.0	P	681	0	8	0.5	-0.1	0.5
41533	14.0	-49.0	P	1005	0	39	0.4	0.5	0.6
41535	14.0	-54.3	P	694	0	6	0.3	0.1	0.4
41536	13.7	-60.9	P	364	0	52	0.7	0.9	1.2
41537	13.4	-58.9	P	169	0	48	2.1	1.2	2.4
41543	29.2	-51.9	P	673	0	6	0.6	0.2	0.6
41544	24.7	-71.4	P	1119	0	45	0.5	0.3	0.5
41545	24.3	-62.1	P	689	0	7	0.5	0.0	0.5
41625	22.4	-69.9	P	610	0	6	0.5	0.6	0.8
41630	29.9	-71.4	P	653	0	7	0.8	0.1	0.8
41643	26.4	-76.0	P	656	0	7	0.6	0.2	0.7
41645	31.0	-68.0	P	889	0	31	0.8	0.8	1.1
41646	28.9	-78.6	P	611	0	4	0.7	0.2	0.7
41667	17.0	-55.2	P	832	6	25	0.4	0.6	0.7
42570	17.6	-71.4	P	1042	0	39	0.4	0.9	1.0
44607	37.1	-33.1	P	669	0	0	0.5	0.2	0.5
44609	48.4	-12.6	P	558	0	0	0.5	0.0	0.5
44611	61.3	-10.9	P	662	0	0	0.5	-0.2	0.5
44615	43.9	-26.1	P	666	0	2	1.0	0.3	1.0
44635	47.6	-38.2	P	261	0	19	1.8	0.8	2.0
44636	44.0	-59.7	P	283	25	43	3.0	-0.9	3.2
44637	39.8	-65.6	P	399	0	14	0.7	0.7	1.0
44722	52.5	-16.5	P	645	0	0	0.6	-0.2	0.6
44723	61.6	-29.9	P	668	0	0	0.6	-0.2	0.6
44725	53.8	-37.1	P	661	0	0	0.8	0.5	0.9
44727	41.6	-22.3	P	636	0	0	0.6	-0.6	0.9
44728	54.2	-19.8	P	650	0	0	0.6	0.3	0.7
44729	43.6	-62.5	P	669	0	0	0.6	-0.6	0.9
44730	60.8	-37.7	P	669	0	0	0.7	0.1	0.7
44742	54.6	-48.2	P	666	0	0	0.9	0.1	0.9
44745	35.9	-35.9	P	742	5	14	0.5	0.5	0.7
44746	41.5	-45.1	P	683	0	4	1.0	0.8	1.2
44747	40.2	-33.8	P	958	0	31	0.6	0.2	0.6
44760	48.5	-43.1	P	660	0	0	1.0	0.2	1.0
44761	50.8	-43.6	P	659	0	0	0.8	-0.2	0.8
44762	53.9	-40.2	P	668	0	0	0.9	-0.2	0.9
44763	52.8	-41.5	P	664	0	0	0.8	-0.2	0.8
44764	47.4	-46.0	P	667	0	0	0.9	0.1	0.9
44765	47.6	-36.7	P	461	0	0	0.9	0.1	0.9
44766	47.1	-42.9	P	468	0	0	1.0	0.4	1.1
44767	47.8	-32.5	P	460	0	0	0.8	0.1	0.8
44768	58.4	-35.6	P	472	0	0	0.7	0.0	0.7
44769	46.5	-49.7	P	463	0	1	1.0	0.4	1.1
44770	56.6	-39.4	P	445	0	0	1.0	-0.1	1.0
44771	49.1	-47.4	P	372	0	1	1.1	-0.3	1.1
44772	40.1	-39.7	P	205	0	1	1.2	0.8	1.4
44773	41.1	-45.3	P	186	0	0	1.2	0.8	1.5
44774	42.6	-63.9	P	15	0	0	0.5	0.8	0.9
44831	62.1	-9.4	P	791	0	24	2.3	-0.1	2.3
44832	59.6	-8.9	P	359	0	30	2.6	1.0	2.7
44844	64.1	-2.3	P	770	0	15	0.5	0.3	0.6
44845	51.5	-25.1	P	764	0	15	0.7	-0.1	0.7
44846	46.4	-15.5	P	742	0	13	0.5	0.1	0.6
44847	40.7	-23.9	P	878	0	27	0.6	0.1	0.6
44848	38.9	-36.2	P	754	0	13	0.6	0.3	0.7
44850	42.6	-18.5	P	727	0	11	0.6	0.1	0.6
44901	36.9	-41.6	P	984	0	35	1.0	0.4	1.1

IDENTIFIER	LAT.	LONG.	ELEM	NOBS	PGE	%REJ	SD	BIAS	RMS
44903	43.2	-36.4	P	995	0	35	0.7	0.2	0.7
47553	44.6	-63.6	P	1	100	100			
47555	72.0	-73.3	P	1378	0	68	0.9	-0.1	0.9
62504	41.9	-14.1	P	652	0	34	1.8	-0.4	1.9
62510	32.3	-26.3	P	668	0	0	0.5	0.3	0.6
62511	43.7	-10.1	P	487	0	10	0.5	0.9	1.0
62514	62.9	-41.6	P	629	0	0	1.2	-0.2	1.2
62515	43.8	-2.9	P	665	0	0	0.5	-0.3	0.6
62556	22.2	-47.6	P	1047	0	37	0.4	0.1	0.4
62557	24.7	-39.7	P	670	0	0	0.4	0.2	0.4
62560	44.5	-27.4	P	798	0	25	0.7	0.0	0.7
62562	52.4	-11.4	P	621	0	0	0.5	0.4	0.6
62564	37.4	-21.3	P	664	0	0	0.5	1.1	1.2
62567	35.4	-22.0	P	643	0	0	0.4	-0.1	0.5
62568	59.9	-6.9	P	180	0	0	0.4	0.8	0.9
62569	55.1	-26.8	P	659	0	0	0.7	0.7	1.0
62571	45.7	-6.8	P	558	0	0	0.5	0.3	0.6
62572	41.0	-13.3	P	657	0	0	0.5	0.1	0.5
62573	40.1	-34.6	P	203	0	0	0.9	0.5	1.0
62909	43.9	-9.7	P	201	0	7	0.5	0.0	0.5
62934	46.7	-7.4	P	748	0	14	0.5	0.1	0.5
62935	41.0	-17.9	P	737	0	13	0.5	0.1	0.5
64613	64.8	-28.1	P	668	0	0	0.7	0.0	0.7
64614	63.6	-19.6	P	666	0	0	0.6	0.1	0.6
64615	61.7	-29.4	P	670	0	0	0.6	-0.1	0.6
64616	58.9	-30.7	P	471	0	0	0.7	-0.1	0.7

IDENTIFIER	LAT.	LONG.	ELEM	NOBS	PGE	%REJ	SD	BIAS	RMS
41525	26.7	-73.0	SPEED	670	0	100	2.3	0.3	2.4
41543	29.2	-51.9	SPEED	647	0	100	2.1	-3.2	3.8
41630	29.9	-71.4	SPEED	644	0	100	2.3	0.9	2.5
41643	26.4	-76.0	SPEED	642	0	100	3.4	0.9	3.5
41645	31.0	-68.0	SPEED	878	0	100	2.4	1.0	2.6
41646	28.9	-78.6	SPEED	591	0	100	2.7	0.9	2.8
41939	37.4	-39.5	SPEED	5	60	100	0.9	5.5	5.6
62571	45.7	-6.8	SPEED	267	0	100	2.2	2.9	3.6

IDENTIFIER	LAT.	LONG.	ELEM	NOBS	PGE	%REJ	SD	BIAS	RMS
41525	26.7	-73.0	DIRN.	374	0	0	16.8	7.4	18.3
41543	29.2	-51.9	DIRN.	95	1	0	13.9	14.5	20.1
41630	29.9	-71.4	DIRN.	451	0	0	17.6	9.6	20.0
41643	26.4	-76.0	DIRN.	337	0	0	16.9	16.2	23.4
41645	31.0	-68.0	DIRN.	622	0	0	15.6	18.7	24.4
41646	28.9	-78.6	DIRN.	386	1	0	26.5	4.5	26.8
41939	37.4	-39.5	DIRN.	5	60	0	39.4	87.0	95.5
62571	45.7	-6.8	DIRN.	247	0	0	14.1	0.5	14.1

TABLE 9

MONTHLY MONITORING OF AIRCRAFT OBSERVATIONS (COSNA)
MONITORING CENTRE: EXETER
MONTH: Feb 06

Monitoring procedures:

Period		:One calendar month.
Data monitored		:Statistics for each airline carrier.
Area monitored		:40°N - 70°N, 60°W - 0°W.
Standard of comparison		:Background field from UKMO global model.
Observation times		:All hours combined.
Level(s) monitored		:300.0 - 150.0 hPa
Elements monitored		:TEMP in °C ; WIND in m s^{-1}
Parameters monitored	:N REP.	:Number of observations received excluding duplicates.
	:PG	:Percentage of observations with gross errors.
	:PR	:Percentage of observations rejected by quality control including rejections from the duplicate check.
	:PC	:Percentage of observations with calm winds.
	:RMS	:Root Mean Square difference of observations from background values excluding those with gross errors in Temperature & vector wind.
	:BIAS	:Mean difference of observations from background values excluding those with gross errors in Temperature & vector wind.
GROSS ERROR LIMITS	:10.0 °C ; 60 m s^{-1} Vector Wind	
SELECTION CRITERIA	:N REP $\geq$ 20	

NB: All American ACARS data are grouped together and statistics are shown at the bottom of the table as "US ACARS". All ADS reports are similarly grouped together.

	TEMPERATURE					WIND					
IDENT.	N.REP.	PG	PR	RMS	BIAS	N.REP.	PG	PR	PC	RMS	BIAS
AAL	4316	0	6	1.4	0.2	4056	0	5	0	5.1	0.8
ACA	1655	0	3	1.4	-0.4	1359	0	2	0	4.9	0.7
ACF	64	9	41	3.9	0.0	33	0	45	0	22.5	-3.1
AEA	259	1	2	1.8	0.3	226	1	6	0	10.5	0.8
AFL	287	2	6	1.8	0.1	136	0	36	0	10.3	0.7
AFR	3903	0	3	1.5	0.1	3796	0	3	0	6.0	0.8
AFZ	145	0	8	2.3	1.9	145	0	9	0	4.9	0.4
AJM	119	0	8	2.2	-0.4	82	1	13	0	11.3	0.7
AMT	69	3	9	1.7	-0.2	60	0	7	0	8.7	-0.4
AMX	283	0	4	1.9	-0.2	239	0	5	0	8.1	0.3
ANZ	152	1	16	1.4	0.2	148	0	15	0	5.0	0.2
AUA	292	0	2	1.4	0.4	285	0	2	0	5.0	0.9
AVA	40	0	3	1.8	0.3	40	0	8	0	13.4	-1.1
AZA	127	0	85	2.8	1.1	98	0	9	0	12.6	-1.5
BAL	169	0	5	1.5	-0.1	164	1	10	0	9.9	-0.2
BAW	438	0	10	1.6	-0.1	322	0	8	0	6.8	0.8
BHP	26	0	4	1.8	0.0	23	0	4	0	8.6	-0.1
BMA	310	1	4	1.6	-0.6	278	1	4	0	5.6	1.0
BPA	275	2	79	3.1	1.5	246	0	16	0	13.4	0.6
BWA	152	1	7	2.6	-0.5	104	0	2	0	6.3	0.6
CFC	25	0	0	1.5	0.2	26	4	12	0	10.2	2.3
CFG	436	1	17	2.3	0.3	304	2	21	0	15.2	-0.4
CFY	93	0	1	1.0	-0.4	90	0	1	0	3.9	0.8
CGD	33	0	0	1.4	-0.7	33	0	0	0	3.6	1.3
CGF	215	0	4	1.3	-0.5	207	0	4	0	4.0	0.8
CGH	359	0	1	1.3	-0.2	338	0	0	0	3.9	0.7
CKS	74	4	7	2.2	0.4	30	0	17	0	12.3	0.2
CLX	230	1	7	1.8	-0.6	98	1	100	0	9.3	0.2
CNJ	81	0	56	1.3	0.6	81	0	56	0	4.9	1.0
COA	4339	0	6	1.4	0.0	4218	0	6	0	5.1	0.8
CRL	88	1	10	2.0	0.3	83	0	11	0	11.4	0.3
CSD	37	0	8	2.2	0.6	22	0	9	0	5.8	0.0
CUB	114	0	7	1.9	-0.6	71	0	100	0	11.6	1.0
DAB	752	0	3	1.2	-0.1	707	0	3	0	4.2	0.3
DAI	473	0	4	1.1	0.1	433	0	4	0	4.0	0.7
DAL	1027	0	6	1.4	0.2	966	0	5	0	5.3	0.6
DLH	3332	0	4	1.3	0.0	3232	0	4	0	4.9	0.8
DRD	70	0	3	2.4	-0.3	70	0	4	0	9.5	0.7
EDW	36	3	22	2.6	-1.0	25	0	28	0	13.2	3.0
EEZ	61	3	21	2.8	-0.1	54	0	15	0	10.7	1.2
EIA	96	1	4	1.7	-0.2	81	1	100	0	24.3	7.0
ELY	379	1	2	1.5	0.3	336	0	3	0	5.6	0.6
ESS	128	1	100	3.2	1.3	35	0	6	0	7.6	1.2
FCA	66	2	100	1.9	0.8	52	4	10	0	10.7	0.8
FDX	252	2	44	1.5	0.0	145	1	41	0	8.8	0.7
FGI	201	0	1	1.4	-0.5	187	0	1	0	4.3	0.8
FGL	167	0	1	1.3	0.0	158	0	1	0	4.8	0.9
FGN	53	0	0	1.2	0.5	51	0	0	0	4.7	1.4
FGS	414	0	2	1.3	0.1	387	0	2	0	4.7	1.0
FGZ	36	0	3	1.1	0.2	34	0	3	0	4.3	0.8
FIN	223	1	5	1.4	-0.1	181	0	3	0	6.4	0.8
FWI	163	6	19	2.0	-0.5	153	0	12	0	8.5	1.7
GCO	84	0	10	1.8	-0.4	77	0	100	0	10.4	2.9
GEC	298	0	23	1.8	0.2	292	0	23	0	9.2	0.6
GOJ	47	0	0	1.1	-0.1	45	0	0	0	4.7	1.1
GRL	67	1	1	1.3	-0.1	46	0	0	0	4.4	1.0
GTI	52	0	2	2.4	0.5	44	0	2	0	7.3	1.0
GVA	50	0	2	1.0	-0.2	49	0	2	0	4.0	0.8
GVB	34	0	3	1.4	-0.1	32	0	3	0	4.2	0.4

	TEMPERATURE					WIND					
IDENT.	N.REP.	PG	PR	RMS	BIAS	N.REP.	PG	PR	PC	RMS	BIAS
GVE	34	0	0	1.0	-0.3	29	0	0	0	3.4	0.5
GVF	102	0	0	1.3	-0.3	96	0	0	0	4.4	0.7
GVG	56	0	0	1.7	-1.0	51	0	0	0	5.3	0.4
GVH	23	0	0	1.3	-0.2	21	0	0	0	5.4	1.2
GVL	38	0	0	0.8	-0.1	36	0	0	0	4.4	-0.4
GVR	121	0	2	1.1	0.0	113	0	3	0	4.0	0.5
GVS	23	0	4	1.0	-0.4	22	0	5	0	4.8	1.2
GVT	26	0	0	1.6	-0.2	23	0	0	0	4.2	0.4
GVW	83	0	4	1.2	-0.3	70	0	4	0	4.9	0.1
GVX	26	0	4	1.0	-0.1	25	0	4	0	3.5	0.2
GWW	57	0	4	1.6	-0.4	50	0	2	0	4.4	0.9
HBI	191	0	4	1.5	-0.4	177	0	5	0	5.2	1.2
HBJ	99	0	5	1.3	-0.5	91	0	5	0	3.9	1.2
IBE	1093	1	3	1.7	0.2	1084	0	3	0	7.6	0.8
ICE	611	0	3	1.6	0.0	311	0	1	0	5.9	0.7
IWD	153	1	5	2.4	-0.6	155	0	3	0	7.7	0.8
KAC	96	0	0	1.2	0.5	94	0	0	0	5.1	1.6
KLM	722	1	7	1.9	0.1	525	1	10	0	10.5	0.6
LCO	31	3	13	1.2	0.3	28	0	11	0	8.0	-0.1
LNR	313	0	45	1.1	-0.3	290	0	45	0	4.1	0.7
LOT	297	0	2	1.8	-1.0	177	0	4	0	5.9	0.2
LTU	399	1	9	2.0	-0.1	280	1	10	0	10.2	1.7
LVG	187	2	12	1.8	0.1	155	0	13	0	10.5	1.4
MAS	81	0	4	1.3	-0.1	76	0	3	0	4.6	0.7
MPD	72	0	0	1.4	0.2	66	0	0	0	6.9	0.7
MPH	109	1	7	1.9	-1.0	69	1	14	0	13.2	-0.4
MSR	99	1	3	1.3	0.3	96	0	2	0	5.9	0.5
MXJ	201	1	11	1.9	-0.2	118	0	0	0	6.1	1.3
MYT	76	0	7	2.0	-0.3	54	0	7	0	10.7	1.4
NOS	114	2	20	2.6	-0.2	75	1	27	0	14.3	0.8
NWA	1742	0	4	1.4	-0.1	1599	0	3	0	5.4	0.6
OAE	188	1	9	2.0	-0.7	82	0	18	0	13.2	3.0
OOM	75	0	11	2.4	1.0	49	0	8	0	4.5	0.6
OYK	212	0	44	1.3	-0.3	201	0	44	0	3.9	0.6
PAC	85	1	9	2.3	-0.1	49	0	8	0	11.3	1.8
PLM	79	0	1	1.9	1.2	76	0	4	0	8.6	0.9
RAM	250	1	4	2.0	0.2	166	1	7	0	11.8	-0.2
RCH	282	0	100	3.5	-0.6	210	0	100	0	12.8	1.0
RZO	145	0	3	1.7	-0.4	128	0	5	0	8.1	0.8
SAS	840	0	58	1.2	-0.1	794	0	58	0	4.4	0.8
SER	450	0	40	1.2	0.1	412	0	41	0	4.2	0.7
SEU	189	4	18	2.5	-0.4	160	0	16	0	12.2	1.3
SIA	298	0	0	1.3	0.1	294	0	0	0	5.0	0.5
SLM	27	0	4	2.2	0.7	27	4	7	0	7.3	0.5
SQC	305	0	1	1.4	-0.1	298	0	1	0	5.4	0.1
SWR	1414	0	4	1.4	-0.3	1385	0	4	0	5.1	0.7
TAP	199	0	1	1.7	-0.4	167	1	4	0	9.4	1.2
TCX	197	0	0	1.2	0.1	192	0	1	0	6.1	1.3
TFL	85	0	13	1.7	-0.3	51	2	18	0	12.6	0.0
THT	87	0	1	1.6	-0.4	84	0	1	0	4.0	0.1
TSC	35	3	6	2.0	0.1	21	0	0	0	6.6	1.0
TSO	23	13	17	2.6	0.4	22	0	18	0	12.8	2.1
UAE	254	0	1	1.3	0.1	244	0	0	0	5.2	1.0
UAL	3294	0	4	1.4	-0.2	3210	0	5	0	5.1	0.9
UPS	792	1	48	1.7	-0.3	447	0	45	0	7.4	0.5
USA	1545	0	4	1.4	0.0	1496	0	3	0	4.9	0.8
VIR	2421	0	2	1.4	-0.2	2337	0	2	0	5.3	0.5
VLE	21	0	24	3.8	-0.1	20	0	20	0	7.3	-0.9
WOA	195	1	7	1.8	0.5	154	1	8	0	10.3	1.0

	TEMPERATURE					WIND					
IDENT.	N.REP.	PG	PR	RMS	BIAS	N.REP.	PG	PR	PC	RMS	BIAS
XLA	44	2	18	2.7	1.3	34	0	15	0	12.7	2.6
ZKN	78	0	0	1.2	0.0	67	0	0	0	4.0	0.6
ZKS	82	0	0	1.1	-0.2	75	0	0	0	4.3	0.8
4XE	27	0	4	1.0	0.2	25	0	4	0	5.5	0.3
9VS	77	0	8	1.1	0.0	72	0	8	0	4.3	0.4

	TEMPERATURE					WIND					
IDENT.	N.REP.	PG	PR	RMS	BIAS	N.REP.	PG	PR	PC	RMS	BIAS
EU	29330	0	22	1.2	0.1	29330	0	22	0	4.2	0.4
N	4689	0	12	1.4	-0.1	4258	0	12	0	4.6	0.7
US AMDAR	33204	0	34	1.3	0.3	33204	0	30	0	4.9	0.4

TABLE 10

MONTHLY MONITORING OF RADIOSONDE OBSERVATIONS (COSNA)
MONITORING CENTRE: EXETER
MONTH: Feb 06

Monitoring procedures

Period		:One calendar month.
Data monitored		:Reports from selected radiosonde TEMPs.
Area monitored		:0°N - 90°N, 100°W - 40°E
Standard of comparison		:Background field from UKMO global model.
Position		:Average latitude and longitude for period.
Observation times		:00, 12 UTC.
Level monitored		:100 hPa.
Element monitored		:GEOPOTENTIAL HEIGHT in metres
Parameters monitored	:NUM OBS	:Number of observations available at level shown during period.
	:NUM GROSS	:Number of gross errors at level shown during period.
	:SD	:SD of difference of observations from background values at level shown excluding those with gross errors.
	:BIAS	:Mean difference of observations from background values at level shown excluding those with gross errors.

GROSS ERROR LIMITS :Defined in Appendix I.1

WMO IDENT	OBS TIME	ELM	LEV	NUM OBS	NUM GROSS	SD	RMS	BIAS
ELML7	00	Z	100	2	0	4.0	17.5	17.0
ELML7	12	Z	100	4	0	6.1	21.2	20.3
FQFL	00	Z	100	10	0	15.0	20.8	14.5
FQFL	12	Z	100	10	0	13.8	26.0	22.0
FQFM	00	Z	100	8	0	15.7	16.1	-3.5
FQFM	12	Z	100	9	0	6.3	8.6	-5.9
KRPD	00	Z	100	5	0	6.7	24.7	23.8
KRPD	12	Z	100	7	0	6.8	24.8	23.9
LDWR	00	Z	100	25	0	22.1	23.0	6.4
LDWR	12	Z	100	22	0	23.3	23.5	3.3
OXGN2	00	Z	100	13	0	11.6	11.7	2.0
OXGN2	12	Z	100	9	0	6.3	6.4	1.2
SKUN	00	Z	100	1	0	0.0	39.0	39.0
V2BD9	00	Z	100	4	0	2.9	21.4	21.3
V2BD9	12	Z	100	4	0	7.4	17.2	15.5
WAAH	00	Z	100	7	0	8.5	36.6	35.6
WAAH	12	Z	100	5	0	15.6	57.4	55.2
WPKD	00	Z	100	5	0	12.0	20.3	16.4
WPKD	12	Z	100	2	0	10.0	17.2	14.0
ZCBE7	00	Z	100	6	0	37.7	37.7	1.8
ZCBE7	12	Z	100	5	0	36.1	37.8	11.2
ZCBF3	00	Z	100	1	0	0.0	62.0	62.0
ZCBF3	12	Z	100	1	0	0.0	44.0	44.0
ZCBP6	00	Z	100	5	0	8.4	38.9	38.0
ZCBP6	12	Z	100	9	0	22.2	29.2	18.9
03953	00	Z	100	24	0	12.9	13.0	1.0
03953	12	Z	100	25	0	11.6	11.7	-1.6
04018	00	Z	100	26	0	11.9	12.0	-0.7
04018	12	Z	100	28	0	8.4	12.0	-8.5
04220	00	Z	100	27	0	7.4	8.7	4.7
04220	12	Z	100	26	0	10.4	10.5	1.5
04270	00	Z	100	25	0	9.3	9.7	-2.9
04270	12	Z	100	24	0	14.6	16.8	-8.2
04339	00	Z	100	26	0	13.6	13.6	0.0
04339	12	Z	100	27	0	23.4	23.4	0.0
04360	00	Z	100	26	0	11.7	12.9	5.3
04360	12	Z	100	27	0	9.0	10.0	4.3
08001	00	Z	100	19	0	9.5	13.7	9.9
08001	12	Z	100	19	0	9.7	22.9	20.7
08508	12	Z	100	26	0	8.4	26.2	24.8
08522	12	Z	100	26	0	8.8	16.0	13.3
08594	12	Z	100	23	0	26.2	26.8	5.7
71600	00	Z	100	27	0	17.5	19.5	-8.7
71600	12	Z	100	28	0	11.0	15.5	-10.9
72201	00	Z	100	27	0	12.5	13.8	5.7
72201	12	Z	100	28	0	12.5	14.1	6.6
72402	00	Z	100	27	0	15.1	19.5	12.4
72402	12	Z	100	28	0	16.2	17.7	-7.0
74494	00	Z	100	24	1	11.0	12.0	-4.8
74494	12	Z	100	28	0	15.1	30.5	-26.5
78016	00	Z	100	24	0	11.6	25.6	22.9
78016	12	Z	100	27	0	12.0	24.8	21.7

TABLE 11

MONTHLY MONITORING OF RADIOSONDE OBSERVATIONS (COSNA)
MONITORING CENTRE: EXETER
MONTH: Feb 06

Monitoring procedures:

Period		:One calendar month.
Data monitored		:Reports from selected radiosonde TEMPs.
Area monitored		:0°N - 90°N, 100°W - 40°E
Standard of comparison		:Background field from UKMO global model.
Position		:Average latitude and longitude for period.
Observation times		:00, 12 UTC.
Level monitored		:500 hPa.
Element monitored		:GEOPOTENTIAL HEIGHT in metres
Parameters monitored	:NUM OBS	:Number of observations available at level shown during period.
	:NUM GROSS	:Number of gross errors at level shown during period.
	:SD	:SD of difference of observations from background values at level shown excluding those with gross errors.
	:BIAS	:Mean difference of observations from background values at level shown excluding those with gross errors.

GROSS ERROR LIMITS :Defined in Appendix I.1

WMO IDENT	OBS TIME	ELM	LEV	NUM OBS	NUM GROSS	SD	RMS	BIAS
ELML7	00	Z	500	5	0	7.3	7.5	-1.6
ELML7	12	Z	500	4	0	6.0	6.6	-2.8
FQFL	00	Z	500	12	0	6.7	7.4	-3.0
FQFL	12	Z	500	10	0	5.3	5.6	-1.6
FQFM	00	Z	500	9	0	9.2	16.9	-14.2
FQFM	12	Z	500	10	0	4.6	11.2	-10.2
KRPD	00	Z	500	6	0	8.9	9.8	4.2
KRPD	12	Z	500	7	0	5.5	7.2	-4.7
LDWR	00	Z	500	25	0	13.0	14.3	5.9
LDWR	12	Z	500	27	0	13.0	14.1	5.5
OXGN2	00	Z	500	14	0	9.4	10.4	4.4
OXGN2	12	Z	500	11	0	7.9	10.8	7.4
SKUN	00	Z	500	1	0	0.0	24.0	24.0
V2BD9	00	Z	500	4	0	7.0	15.0	13.3
V2BD9	12	Z	500	4	0	2.5	8.4	8.0
WAAH	00	Z	500	9	0	7.2	23.4	22.2
WAAH	12	Z	500	8	0	3.8	28.1	27.9
WPKD	00	Z	500	5	0	10.2	11.7	5.8
WPKD	12	Z	500	3	0	13.0	14.4	-6.3
ZCBE7	00	Z	500	6	0	39.1	44.3	-20.8
ZCBE7	12	Z	500	5	0	38.1	39.1	-9.0
ZCBF3	00	Z	500	1	0	0.0	31.0	31.0
ZCBF3	12	Z	500	2	0	4.0	16.5	16.0
ZCBP6	00	Z	500	6	0	8.9	25.4	23.8
ZCBP6	12	Z	500	9	0	13.6	22.3	17.7
03953	00	Z	500	25	0	5.3	5.4	0.6
03953	12	Z	500	26	0	5.6	5.7	-0.1
04018	00	Z	500	27	0	10.8	10.8	0.1
04018	12	Z	500	28	0	8.3	9.0	-3.5
04220	00	Z	500	27	0	11.5	11.5	1.2
04220	12	Z	500	26	0	6.5	6.5	-0.5
04270	00	Z	500	25	0	11.4	11.5	-1.4
04270	12	Z	500	25	0	9.4	9.5	-1.6
04339	00	Z	500	26	0	13.1	13.1	0.6
04339	12	Z	500	27	0	12.1	12.4	-2.7
04360	00	Z	500	27	0	10.2	10.2	0.1
04360	12	Z	500	27	0	6.1	6.8	3.1
08001	00	Z	500	25	0	4.8	6.1	3.6
08001	12	Z	500	26	0	8.4	8.5	1.7
08508	12	Z	500	27	0	6.5	7.5	-3.7
08522	12	Z	500	27	0	5.5	9.4	-7.6
08594	12	Z	500	24	0	7.4	7.5	-1.3
71600	00	Z	500	27	0	9.6	10.9	-5.3
71600	12	Z	500	28	0	7.9	11.9	-8.9
72201	00	Z	500	27	0	5.7	10.3	-8.6
72201	12	Z	500	28	0	5.7	8.3	-6.1
72402	00	Z	500	27	0	5.0	5.0	-0.2
72402	12	Z	500	28	0	11.8	12.2	-2.8
74494	00	Z	500	25	1	8.0	10.2	-6.3
74494	12	Z	500	28	0	6.8	10.4	-7.9
78016	00	Z	500	26	0	8.7	9.4	3.5
78016	12	Z	500	28	0	6.1	7.3	4.1

TABLE 12

MONTHLY MONITORING OF RADIOSONDE OBSERVATIONS (COSNA)
MONITORING CENTRE: EXETER
MONTH: Feb 06

Monitoring procedures

Period		:One calendar month.
Data monitored		:Reports from selected radiosonde TEMPs.
Area monitored		:0°N - 90°N, 100°W - 40°E
Standard of comparison		:Background field from UKMO global model.
Position		:Average latitude and longitude for period.
Observation times		:00, 12 UTC.
Level monitored		:100 hPa.
Element monitored		:VECTOR WIND in m s^{-1}
Parameters monitored	:NUM OBS	:Number of observations available at level shown during period.
	:NUM GROSS	:Number of gross errors at level shown during period.
	:UBIAS,VBIAS	:Mean difference of observations of U and V components from background values at level shown excluding those with gross errors.
	:RMS	:Root Mean Square difference of observations from background values at level shown excluding those with gross errors.
GROSS ERROR LIMITS	:Defined in Appendix I.2	

WMO IDENT	OBS TIME	ELM	LEV	NUM OBS	NUM GROSS	% REJ	RMS	UBIAS	VBIAS
ELML7	00	V	100	2	0	0	4.0	1.4	1.2
ELML7	12	V	100	4	0	0	4.6	-0.1	0.8
FQFL	00	V	100	10	0	0	3.8	-1.7	0.9
FQFL	12	V	100	10	0	0	3.8	-1.5	1.5
FQFM	00	V	100	8	0	0	5.1	-1.3	-2.4
FQFM	12	V	100	10	0	0	5.1	-1.1	-0.6
KRPD	00	V	100	5	0	0	7.0	-4.2	2.7
KRPD	12	V	100	7	0	0	4.3	0.2	3.3
LDWR	00	V	100	25	0	0	3.2	-0.1	-0.2
LDWR	12	V	100	20	0	0	3.1	0.2	0.4
OXGN2	00	V	100	12	0	0	3.5	-1.1	-0.9
OXGN2	12	V	100	7	0	0	3.3	-0.2	0.8
SKUN	00	V	100	1	0	0	2.5	0.9	-2.3
V2BD9	00	V	100	4	0	0	4.0	0.1	1.6
V2BD9	12	V	100	4	0	0	3.1	2.4	-0.5
WAAH	00	V	100	7	0	0	4.4	-0.9	0.9
WAAH	12	V	100	5	0	0	3.7	-0.9	0.6
WPKD	00	V	100	5	0	0	8.1	1.1	-0.4
WPKD	12	V	100	2	0	0	2.2	1.6	-0.1
ZCBE7	00	V	100	5	0	0	5.0	0.7	0.0
ZCBF3	00	V	100	1	0	0	4.2	3.7	2.0
ZCBF3	12	V	100	1	0	0	2.7	0.5	-2.7
ZCBP6	00	V	100	3	0	0	2.3	0.1	1.1
ZCBP6	12	V	100	9	0	0	4.9	0.0	0.8
03953	00	V	100	21	0	0	3.1	-0.8	0.1
03953	12	V	100	22	0	0	3.5	-0.7	0.6
04018	00	V	100	26	0	0	3.3	-1.4	-0.6
04018	12	V	100	28	0	0	3.4	0.4	0.0
04220	00	V	100	27	0	0	4.5	-0.5	-0.2
04220	12	V	100	25	0	0	3.7	0.3	0.0
04270	00	V	100	25	0	0	3.3	0.3	-0.3
04270	12	V	100	24	0	0	4.0	-0.1	0.3
04339	00	V	100	26	0	3	7.1	2.8	-0.9
04339	12	V	100	27	0	0	4.1	0.8	-0.2
04360	00	V	100	26	0	3	6.7	-0.2	0.4
04360	12	V	100	25	0	0	3.4	-0.1	0.6
08001	00	V	100	18	0	0	3.6	0.0	0.6
08001	12	V	100	18	0	0	4.1	0.4	0.8
08508	12	V	100	9	0	0	3.1	-1.1	0.2
08522	12	V	100	25	0	0	5.4	0.7	0.2
08594	12	V	100	22	0	100	4.8	0.3	-2.7
71600	00	V	100	26	0	0	5.4	-0.4	1.2
71600	12	V	100	28	0	0	6.0	-1.3	0.2
72201	00	V	100	26	0	0	4.7	1.9	1.3
72201	12	V	100	28	0	0	4.2	0.9	0.3
72402	00	V	100	27	0	0	5.3	-0.2	1.7
72402	12	V	100	28	0	0	5.3	0.2	1.3
74494	00	V	100	19	0	100	5.0	-2.3	2.5
74494	12	V	100	26	0	100	5.0	-0.6	1.4
78016	00	V	100	23	0	0	6.2	-0.1	1.8
78016	12	V	100	24	0	0	5.9	0.8	1.1

TABLE 13

MONTHLY MONITORING OF RADIOSONDE OBSERVATIONS (COSNA)
MONITORING CENTRE: EXETER
MONTH: Feb 06

Monitoring procedures

Period		:One calendar month.
Data monitored		:Reports from selected radiosonde TEMPs.
Area monitored		:0°N - 90°N, 100°W - 40°E
Standard of comparison		:Background field from UKMO global model.
Position		:Average latitude and longitude for period.
Observation times		:00, 12 UTC.
Level monitored		:500 hPa.
Element monitored		:VECTOR WIND in m s^{-1}
Parameters monitored	:NUM OBS	:Number of observations available at level shown during period.
	:NUM GROSS	:Number of gross errors at level shown during period.
	:UBIAS,VBIAS:	Mean difference of observations of U and V components from background values at level shown excluding those with gross errors.
	:RMS	:Root Mean Square difference of observations from background values at level shown excluding those with gross errors.

GROSS ERROR LIMITS :Defined in Appendix I.2

WMO IDENT	OBS TIME	ELM	LEV	NUM OBS	NUM GROSS	% REJ	RMS	UBIAS	VBIAS
ELML7	00	V	500	5	0	0	2.3	1.0	0.2
ELML7	12	V	500	4	0	0	2.5	1.3	0.2
FQFL	00	V	500	12	0	0	3.4	0.6	0.3
FQFL	12	V	500	10	0	0	2.9	-0.8	0.9
FQFM	00	V	500	9	0	0	3.5	0.1	1.4
FQFM	12	V	500	10	0	0	3.4	0.6	0.9
KRPD	00	V	500	6	0	0	3.6	0.1	1.1
KRPD	12	V	500	7	0	0	3.8	2.2	-0.7
LDWR	00	V	500	25	0	0	3.4	-0.8	0.7
LDWR	12	V	500	27	0	0	3.2	0.8	0.6
OXGN2	00	V	500	12	0	0	3.4	-0.6	0.7
OXGN2	12	V	500	9	0	0	5.3	-0.2	-1.1
SKUN	00	V	500	1	0	0	2.1	-0.6	-2.0
V2BD9	00	V	500	4	0	0	4.1	-0.2	-1.1
V2BD9	12	V	500	4	0	0	5.7	0.9	0.3
WAAH	00	V	500	9	0	0	3.2	0.6	-0.7
WAAH	12	V	500	8	0	0	2.3	1.5	0.6
WPKD	00	V	500	5	0	0	5.5	-0.9	1.2
WPKD	12	V	500	3	0	33	8.3	-2.4	0.0
ZCBE7	00	V	500	5	0	0	5.1	0.9	1.5
ZCBF3	00	V	500	1	0	0	14.4	9.9	10.5
ZCBF3	12	V	500	1	0	0	1.1	-0.8	0.7
ZCBP6	00	V	500	6	0	0	5.4	1.2	-2.1
ZCBP6	12	V	500	9	0	0	6.7	0.6	-2.0
03953	00	V	500	25	0	0	4.4	0.0	0.1
03953	12	V	500	26	0	0	3.6	-0.5	-0.1
04018	00	V	500	27	0	0	2.8	0.1	0.3
04018	12	V	500	28	0	0	4.8	-0.3	0.4
04220	00	V	500	27	0	0	4.5	0.5	0.4
04220	12	V	500	26	0	0	3.9	-0.3	0.6
04270	00	V	500	25	0	0	5.9	-0.6	-0.4
04270	12	V	500	25	0	0	4.2	-0.3	-0.1
04339	00	V	500	26	0	3	6.6	-0.7	0.3
04339	12	V	500	27	0	0	4.3	1.3	-0.3
04360	00	V	500	27	0	3	7.9	-1.1	-0.3
04360	12	V	500	27	0	0	4.7	-0.2	0.1
08001	00	V	500	24	0	0	4.9	-0.8	0.2
08001	12	V	500	26	0	0	4.6	0.0	-1.5
08508	12	V	500	8	0	0	4.3	0.0	0.8
08522	12	V	500	27	0	0	5.1	-0.1	-0.9
08594	12	V	500	24	0	0	4.8	0.2	-2.0
71600	00	V	500	27	0	0	4.6	0.9	1.0
71600	12	V	500	28	0	0	4.4	0.4	0.9
72201	00	V	500	27	0	0	3.3	0.6	1.4
72201	12	V	500	28	0	0	2.5	-0.1	0.2
72402	00	V	500	27	0	0	3.0	0.5	-0.8
72402	12	V	500	28	0	0	4.0	1.2	-0.8
74494	00	V	500	25	0	100	4.1	-1.9	0.9
74494	12	V	500	28	0	100	4.2	-1.3	0.5
78016	00	V	500	26	0	0	5.0	1.2	0.5
78016	12	V	500	28	0	0	3.9	0.4	-0.8

APPENDIX I

1. The gross error limits for observation minus background differences of geopotential height in Tables 5, 10 and 11 are:-

Level (hPa)	Geopotential height (metres)
1000	100
850	100
700	100
500	150
400	175
300	200
250	225
200	250
150	275
100	300
70	375
50	400
30	450

The weighted RMS values used in Table 5,10 and 11 are calculated using the following weights:-

Level (hPa)	Weight
1000	3.70
850	3.40
700	2.90
500	2.20
400	1.90
300	1.60
250	1.50
200	1.37
150	1.19
100	1.00
70	0.87
50	0.80
30	0.64

2. The gross error limits for observation minus background differences of windspeed in Tables 6,12 and 13 are:-

Level (hPa)	Windspeed m s^{-1}
1000	35
850	35
700	40
500	45
400	50
300	60
250	60
200	50
150	50
100	45